Kodak Professional

SRP 30
LASER PRINTER
OPERATOR'S GUIDE
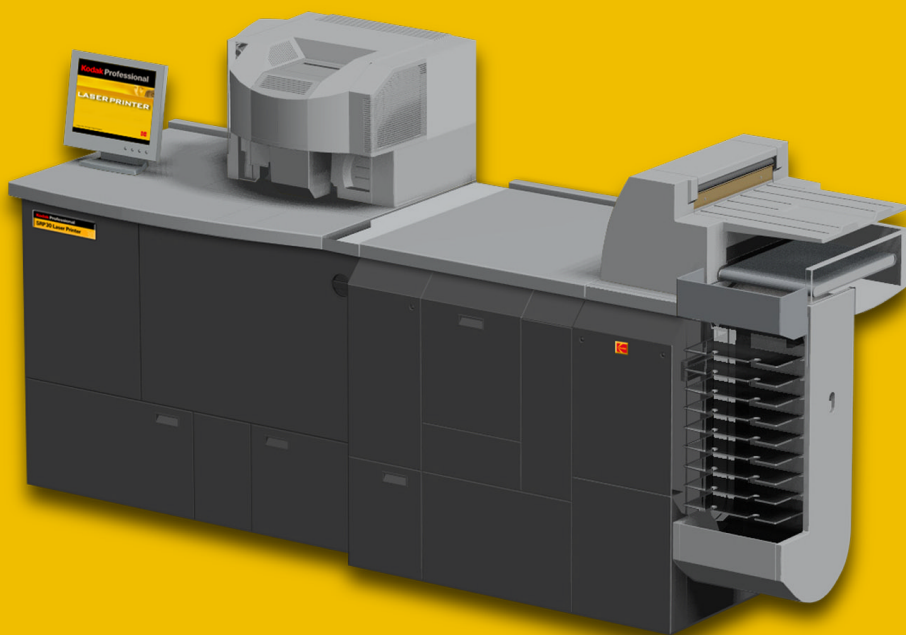
Kodak

Operator's Guide

KODAK PROFESSIONAL SRP 30 Laser Printer
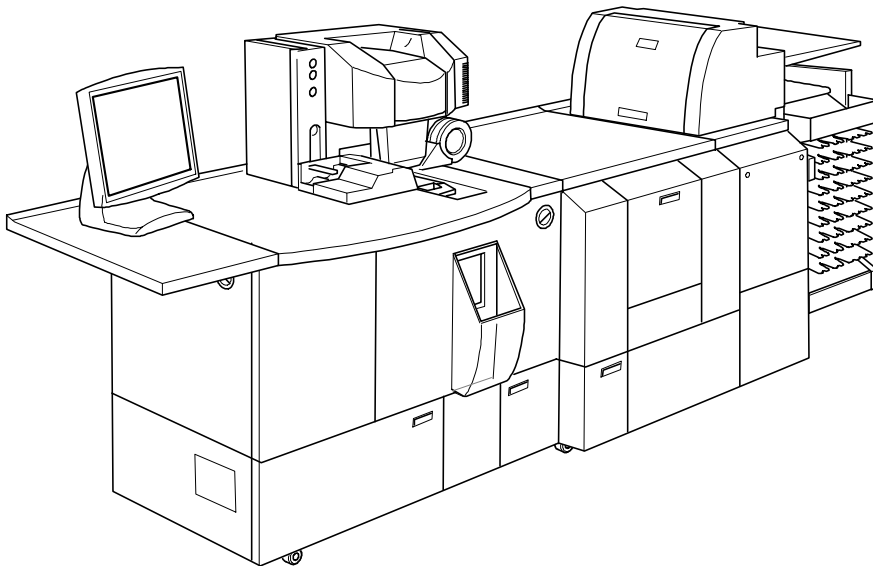
Table of Contents

Regulatory and Safety Information

Contents

Regulatory Compliance

EMC Compliance

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his or her own expense.

CE Compliance

WARNING: **This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.**

Cautionary Symbols and Labels

Hot Surface Symbol
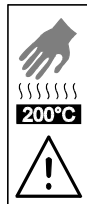
CAUTION: **Hot surface. Allow the surface to cool before you touch it.**

Electrical Hazard Symbol

CAUTION: **Risk of electrical shock. To avoid shock, do not remove the panel.**

Mechanical Hazard Symbol

CAUTION: **Moving parts. Avoid contact. Keep your hands, hair, loose clothing, and jewelry away from moving parts.**

Laser Compliance and Safety

The KODAK PROFESSIONAL SRP 30 Laser Printer is equipped with an Argon Ion Laser of Class 3B. To prevent damage caused by the laser beam, the laser is encapsulated. Because the laser is encapsulated, the entire SRP 30 Laser Printer is classified as a Class 1 Laser Device.

This product complies with 21 CFR Chapter I, Subchapter J.

This is a Class 1 laser product.

The laser beam cannot strike the operator when the machine is operated under normal conditions, even when the machine doors are open.

WARNING: Never remove or open covers to the laser modules. A laser beam of class 3B may be accessible after the removal of covers.

There are no user-serviceable parts in the laser module of the SRP 30 Laser Printer.

CAUTION: **Use of controls or adjustments, or performance of procedures other than those specified herein may result in hazardous radiation exposure.**

Labels on the equipment identify the laser and the laser module.

Certification Labels

Kodak Professional SRP 30 Laser Printer

| SERVICE CODE | 3810 | PRINTER SERIAL NUMBER | DATE OF PRINTER MANUFACTURE | A |

EASTMAN KODAK COMPANY
Rochester, NY 14650
Made in Germany

P/N 2J8899

Kodak Professional SRP 30 Laser Printer

| SERVICE CODE | 3810 | PROCESSOR SERIAL NUMBER | DATE OF PROCESSOR MANUFACTURE |

AC 220/360 V, 230/400 V, 240/415 V 50/60 Hz 16 A 3W+N+PE

AC 200/210/220/230/240 V 50/60 Hz 25 A 3W+PE

AC 200/210/220/230/240 V 50/60 Hz 32 A 2W+PE or 1W+N+PE

TÜV PRODUCT SERVICE   GS   ⊙ N137   CE   TÜV PRODUCT SERVICE C NRTL US

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This class A digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

This product complies with 21 CFR Chapter I, Subchapter J.

B

EASTMAN KODAK COMPANY
Rochester, NY 14650
Made in Germany

P/N 2J8881

Class 1 Laser Product
according to IEC 60825-1

C

Non-interlocked Panel Label

DANGER
LASER RADIATION WHEN OPEN
AVOID DIRECT EXPOSURE TO BEAM

PELIGRO
RADIACION LASER CUANDO SE ABRA
EVITE LA EXPOSICION DIRECTA DEL HAZ

VORSICHT!
LASER STRAHLUNG TRITT AUS,
WENN DECKEL
GEÖFFNET IST!
NICHT DEM STRAHL AUSSETZEN!

DANGER
RAYONNEMENT LASER A L'OUVERTURE
EVITER TOUTE EXPOSITION DIRECTE
AU RAYON

D

Aperture Label

AVOID
EXPOSURE
LASER RADIATION IS EMITTED
FROM THIS APERTURE

E

Laser Source Label

DANGER

LASER RADIATION

AVOID DIRECT EXPOSURE

TO BEAM

LASER
100 mW MAX OUTPUT
at 430-690 nm

CLASS IIIb LASER PRODUCT

F
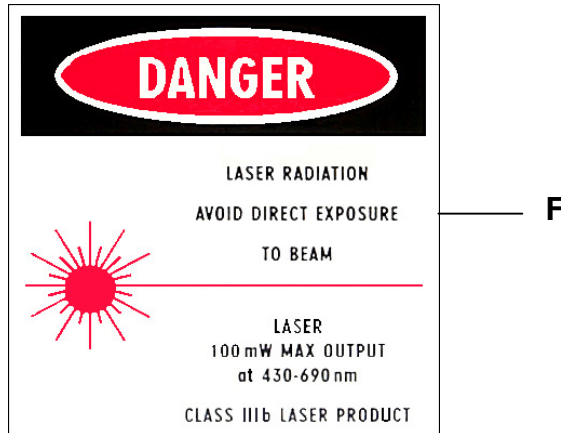
Locations of Laser Safety Labels
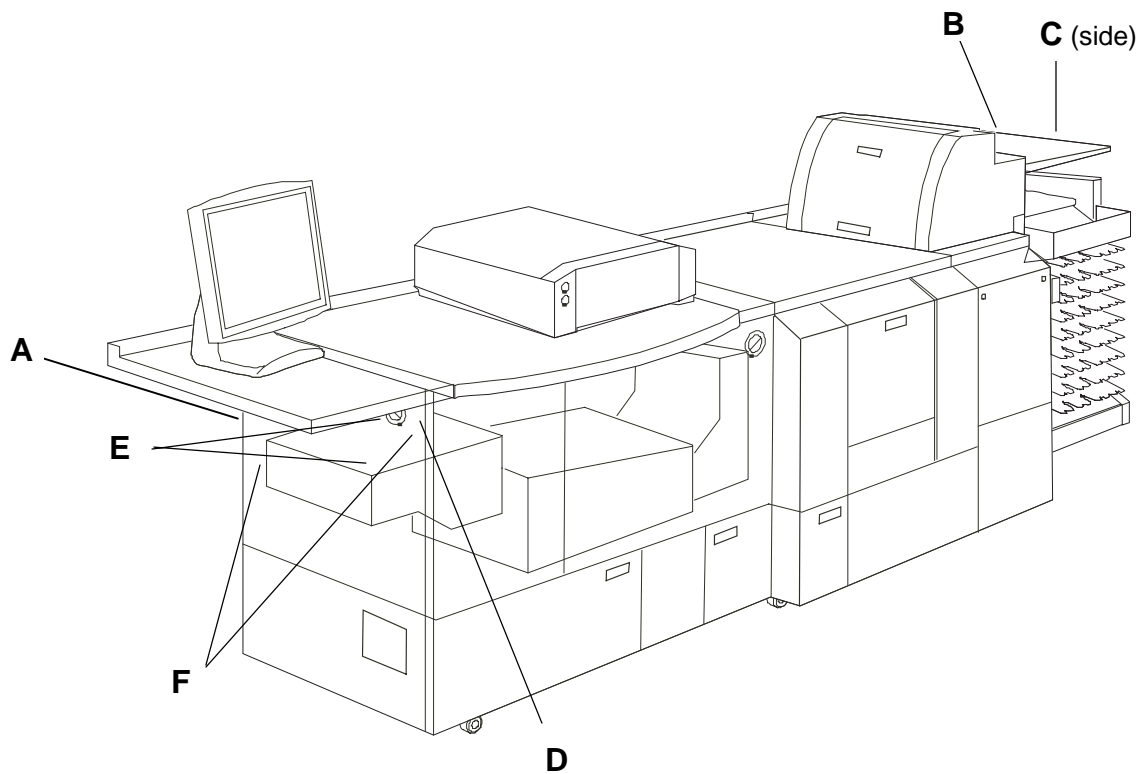
Safety Precautions

Legal Notice

The SRP 30 Laser Printer is designed for operation in conformance with all local safety regulations.

Follow all safety regulations, warnings, and instructions on machine labels. Failure to observe these regulations may result in personal injury or damage to the equipment and working area.

The manufacturer and service provider will not assume any responsibility for accidents and damage resulting from incorrect operation.

General Precautions

- Never modify or rewire electrical circuits.
- Do not circumvent or disable the integrated safety devices.
- Do not modify preset values of safety components.
- Replace fuses only with the same type of fuse (amp value, switch-off characteristics).

When Operating the Equipment

WARNING: ***Do not operate the equipment without the covers and panels. Persons who open or remove covers expose themselves to dangerous voltages and other risks of injury.***

- Do not cover or block the vent openings in the housing. Doing so may lead to overheating of components.
- Do not allow objects or liquids to enter the equipment through the vent openings. Doing so may cause fire or electrical shock.
- Do not allow the power cable to be squeezed or crimped. Install the power cable so that it will not cause someone to step on or trip over it.
- Avoid excessive generation of dust. Doing so may damage the components in the machine.

When Disposing of the Equipment

The SRP 30 Laser Printer contains a small amount of lead in circuit boards and mercury in the backlight of the LCD monitor. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities, or in the USA, go to the Electronics Industry Alliance Web site at www.eiae.org.

Handling of Processing Chemicals

Disposal of Chemicals and Containers

Effluent Management

IMPORTANT: *Regulations and requirements regarding the proper disposal of photographic processing effluents vary by region and by locality.*

If your facility will use on-site waste management procedures (for example, silver recovery units) for silver-bearing effluents, contact the municipal sanitary sewer authorities for the discharge requirements and permit application procedures, as applicable.

If you will manage silver-bearing effluents off-site, contact your local solid waste or hazardous waste authorities to obtain regulatory and permit guidance.

Because it is customary practice to discharge the non-silver bearing effluents to the sanitary sewer system, contact the sewer authorities about proper treatment at your local municipal treatment facility.

Chemical Concentrates

Certain concentrates may be considered hazardous waste and require special attention. If you must dispose of chemical concentrates as waste material, contact your local solid waste or hazardous waste authorities to obtain disposal information.

Chemical Filters

When you clean the chemical filters for the silver-bearing working solutions, collect the rinse water and direct it to a silver recovery unit for treatment or collect it for treatment at an off-site facility.

Container Recycling and Disposal

IMPORTANT: *Use cold water for rinsing all containers.*

In most regions, it should be possible to participate in your local community recycling program. Check with the program authorities to determine if the packaging materials are eligible for local recycling. If they are eligible, disassemble the package and place the bottles and corrugated material in your recycling bin. Follow all material preparation instructions from the recycler. If local recycling is not an option, dispose of the empty bottles and the package with your normal solid waste.

Assistance from Kodak

For more information on waste management and recycling, go to
www.kodak.com/go/kes.

Safety Precautions for the Handling of Chemicals

WARNING: *Follow these guidelines for the safe handling of chemicals in the equipment working area.*

General Guidelines

- Be sure that all persons operating the equipment have a complete set of instructions for the handling of dangerous substances.
- Be sure that all persons operating the equipment have training on the handling of dangerous substances at least once a year.
- Check for sufficient room ventilation in the working area. The air should be exchanged at least eight to ten times per hour.

Skin and Eye Protection

Photographic solutions contain substances that may irritate the skin, the mucous membranes, or the eyes. They may also cause allergic skin reactions. For all procedures where photographic processing solutions may splash (for example, preparing and filling in chemical solutions or cleaning processing racks), follow these guidelines:

- Avoid skin contact, especially with developer solutions.
- Wear protective gloves and change them every day, if possible. It may be necessary to also wear a rubber apron during some maintenance operations.
- Rinse all solutions that get on the skin with plenty of running water.
- Wear protective goggles. If splashes do get into the eyes, wash them immediately with plenty of water, lifting the eyelids away from the eyes. Then consult an eye doctor if irritation occurs.

Storage and Disposal

IMPORTANT: *Follow the guidelines for Disposal of Chemicals and Containers on Page ix.*

- Store chemicals and processing solutions in a safe place.
- Collect drained chemicals immediately and dispose of the solutions, observing the above provisions.
- Use cold water to rinse chemical residue from the KODAK EKTACOLOR Processing Cartridge 75 cartons before disposing of them.

Warranty Information

The following warranty information pertains to equipment that is installed in the United States only. For equipment installed in countries other than the United States, the terms and conditions of the new equipment warranty are provided by the Kodak company in the country in which the sale is finalized, or by a Kodak-appointed distributor in countries where Kodak does not have direct sales representation.

Warranty Period

Kodak warrants new equipment to function properly for 90 days from the date of initial installation. This warranty covers the purchaser of the equipment as well as anyone else who owns it during the warranty period.

Warranty Repair Coverage

If this equipment does not function properly during the warranty period, a Service and Support Field Engineer from Kodak will repair the equipment without charge during Kodak's normal working hours (usually 8:00 a.m. to 5:00 p.m., Monday through Friday). Such repair service will include any adjustments and/or replacement of parts required to maintain your equipment in good working order. Supply items are billed as required.

How to Obtain Service

Before you call, please know your printer's K-Number.

For service and support:

- *In the United States:* call Eastman Kodak Company at 1-800-356-3253 (1-800-3KODAK3).
- *Outside the United States:* contact your local Kodak representative.

Limitations

Warranty service is limited to areas within Kodak's established marketing centers in the contiguous United States, the island of Oahu in Hawaii, and some areas of Alaska.

This warranty does not cover circumstances beyond Kodak's control; it does not cover service or parts for any attachments, accessories, or alterations not marketed by Kodak, nor to correct problems resulting from their use.

Damage caused by failure to meet the electrical specification in this manual is not covered under the warranty to service agreement claim.

Kodak makes no other warranties, express, implied, or of merchantability, for this equipment.

Repair or replacement without charge is Kodak's only obligation under this warranty. Kodak will not be responsible for any consequential or incidental damages resulting from the sale, use, or improper functioning of this equipment, even if loss or damage is caused by the negligence or the fault of Kodak.

Such damages, for which Kodak is not responsible, include, but are not limited to, loss of revenue or profit, downtime costs, loss of use of the equipment, cost of any substitute equipment, and facilities or services of claims of your customers for such damages.

This limitation of liability does not apply to claims for injury to persons or damage to property caused by the sole negligence or fault of Kodak or by persons under its direction or control.

Chapter 1 Introduction

Contents

Using the Documentation

Structure

This Operator's Guide contains information about:

- Safety precautions
- Machine settings
- Print configurations
- Production
- Maintenance

Text Styles

In this guide, **bold print** indicates screen or button designations.

Examples:

"Touch **OK** to validate the displayed text and close the **Input** screen."

"Touch **Reorder** to process reorders."

Italic print indicates cross-references.

Example:

"Also see *Safety Precautions* on the following page."

Notices

The following notices are used in this manual and on equipment labels:

NOTE: Contains parenthetical (information-only) material. This is the least urgent type of notice.

IMPORTANT: *Contains information essential to correct operation of the equipment.*

CAUTION: Indicates the potential for damage to or from the equipment.

WARNING: Indicates the potential for injury to persons operating the equipment.

DANGER: INDICATES THE POTENTIAL FOR SEVERE INJURY TO PERSONS OPERATING THE EQUIPMENT.

Safety Precautions

See the *Regulatory and Safety Information* in the front of this guide for details about:

- Electrical precautions
- Operation of the equipment
- Disposal of the equipment
- Handling and storage of processing chemicals
- Laser safety

Follow all safety regulations, warnings, and instructions that are on equipment labels and in the guide.

Storage of Chemicals and Paper

Consumable	Storage Requirements
Chemicals	Store and prepare chemicals according to the manufacturer's specifications.
Photographic Paper	Store all photographic in a cool and dry location.
	Storage Temperature: 2–10°C (35–50°F)
	Relative Humidity (for open packages): 50–60%

IMPORTANT: *To avoid visible changes in the photographic paper, do not store the paper at temperatures above 30°C (86°F).*

Chapter 2 Overview

Contents

General Description

The SRP 30 Laser Printer contains four major components:

1. **Main computer** (separate, but integrated into the scanner housing) **–** controls the general work process and generates the image exposure data. The monitor for the operation of the system is connected to the main computer.
2. **Scanner –** digitizes frames and slides and determines corrections and exposure values.
3. **Printer –** prepares and advances the paper size to be exposed and exposes the digital images on paper by means of a laser. Special laser paper is required to obtain optimum results.
4. **Paper Processor –** includes a connected sorter and a deposit for the prints.
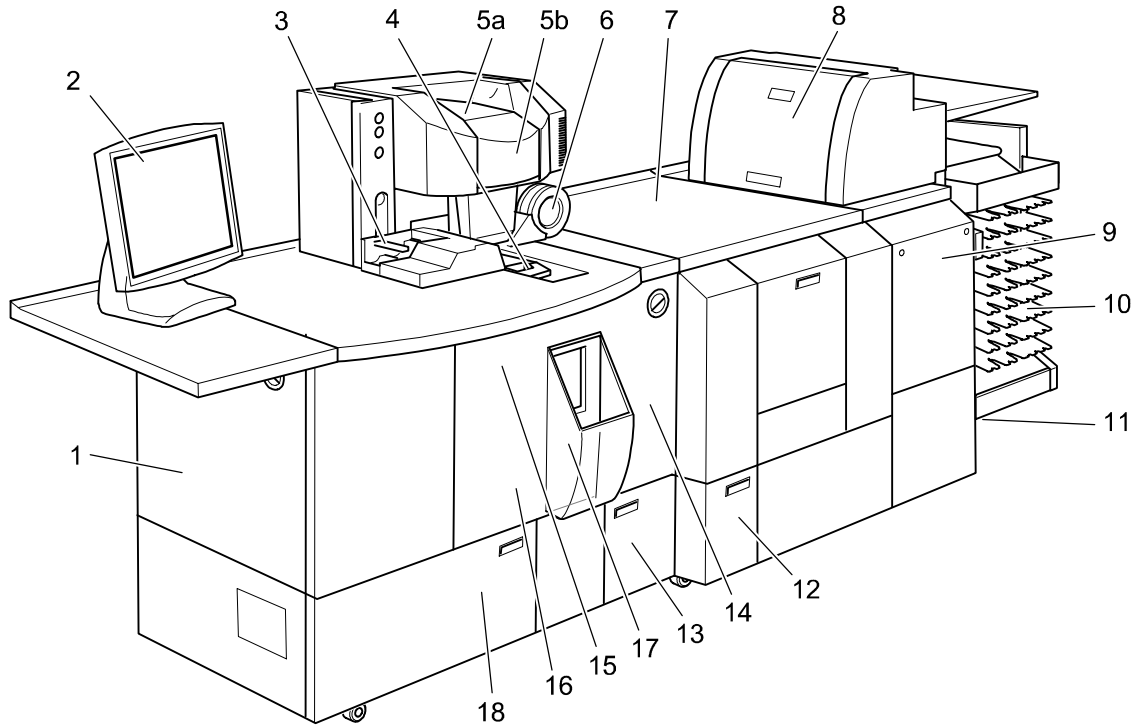
1 Exposure unit with laser fiber and laser module

2 Touch-screen monitor

3 Film feeder with a cleaning brush

4 Film mask for the scanner

5a Printing lamp

5b Filter wheel

6 Film take-up

7 Wet section with racks, crossovers, and chemical filters

8 Built-in densitometer

9 Dryer

10 Order sorter

11 Main breaker, ground fault interrupter (GFI) switch

12 Drain valves for the chemical overflow

13 Right-hand paper magazine

14 Lane distributor

15 Lens and CCD

16 Transport unit

17 Film collecting box

18 Left-hand paper magazine

Product Description

The SRP 30 Laser Printer provides convenient and quick printing of:

- Black-and-white and color negative films
- Color slides (frames)
- Digital images

The digital image files are transferred to the SRP 30 Laser Printer by:

- Data carriers
  - Diskette
  - ZIP disk
  - CD-ROM or Smart Media card (by way of PCMCIA adapter)
- Network (workstation)

NOTE: It is your responsibility to provide for a network and/or a workstation and to provide for its connection.

Image Editing
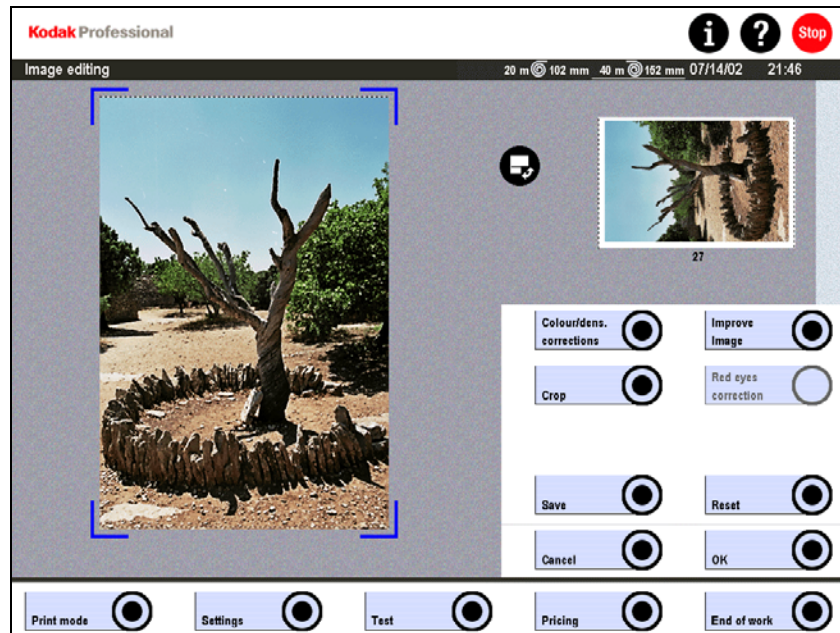
The SRP 30 Laser Printer offers a wide variety of image editing options:

- Color and density corrections
- Cropping
- Image enhancement
  - area and detail contrast
  - sharpness
  - saturation
- Special features
  - colored texts
  - borders

These modifications are calculated on the image processing board. The image in the display refreshes immediately.

Functional Procedure

The SRP 30 Laser Printer performs the following functions to process print orders.

- Prescans and scans the image
- Cuts the paper
- Transports the paper
- Edits the image, if necessary
- Exposes the image
- Distributes the paper to the appropriate lane to the processor
- Processes the image
- Deposits the prints in the sorter

These steps are described in the next section, *Film Advance and Paper Transport.*

Film Advance and Paper Transport

Scanner

1 Lamp

2 Exposure filter

3 Mirror box

4 Film advance

5 Lens

6 CCD area
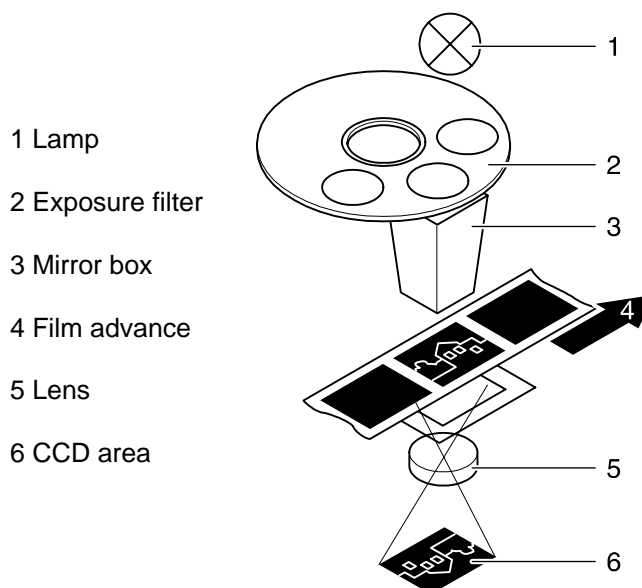
After the paper size is selected, the film is fed into the film mask through the film feeder. While the film is transported through the film mask and into the film take-up, a prescan determines the exposure data for each frame of the film.

After the main computer calculates the correction data, the frames are digitized. The film is removed from the film take-up and the frames are positioned and exposed one by one in the film mask. Three color density extracts are exposed on the CCD of each frame by means of the color filter wheel (scan, approximately 2000 x 3000 pixels).

For slides, the prescan is also performed by means of the CCD chip.

Main Computer
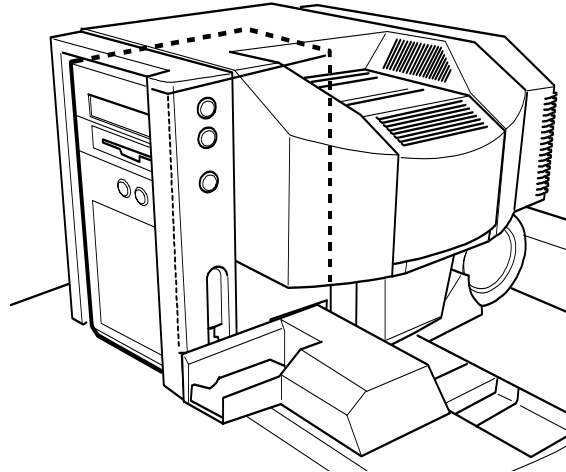
The main computer—by way of the image-processing card—processes the digitized image data, the prescan data, and your correction and image editing data. The computer converts the data to an exposable image and sends it to the printer.

Printer
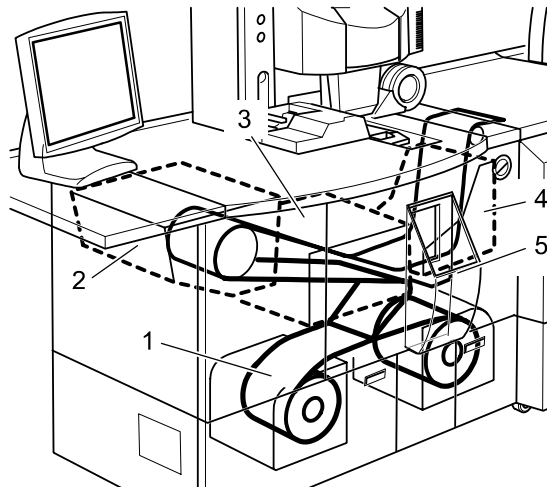
The printer transports the cut paper (1) to the print engine (2), exposes the paper to the laser beam, and advances it through the transport unit (3) up to the lane distributor (4). The back print (5) is applied in the lane distributor.

The lane distributor transports the print to the paper processor.

Paper Processor
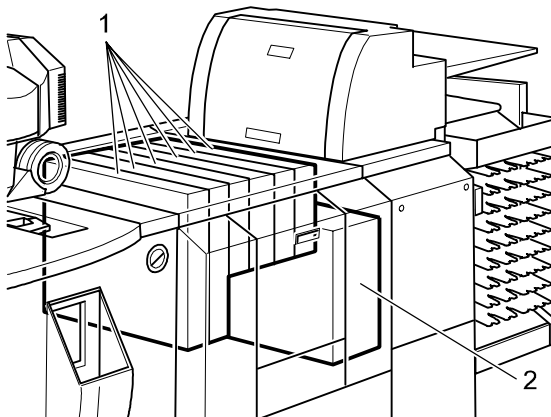
The exposed paper advances through the processing solutions (1), which include the developer, bleach-fix, and stabilizer. The paper then advances through the dryer (2).

Sorter
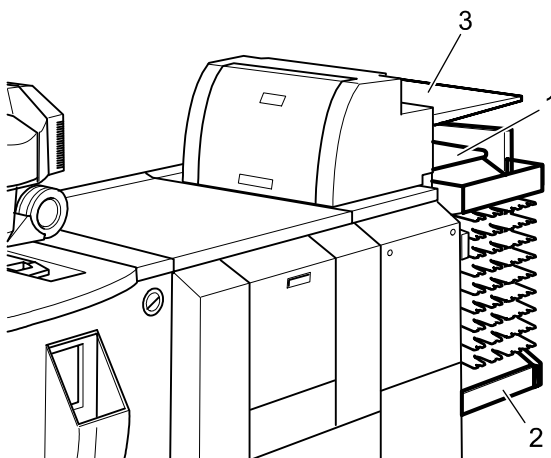
After drying, the prints exit from the print chute (1) into the sorter (2) where they are sorted by orders and stacked in trays.

- If a print order exceeds the capacity of one tray (a maximum of 43 prints), the sorter automatically switches to the next tray without terminating the print order.
- Splices in the paper rolls are cut separately and the respective pieces of paper are deposited in the print order stack.
- Large prints are deposited on the large print deposit tray (3).

Densitometer
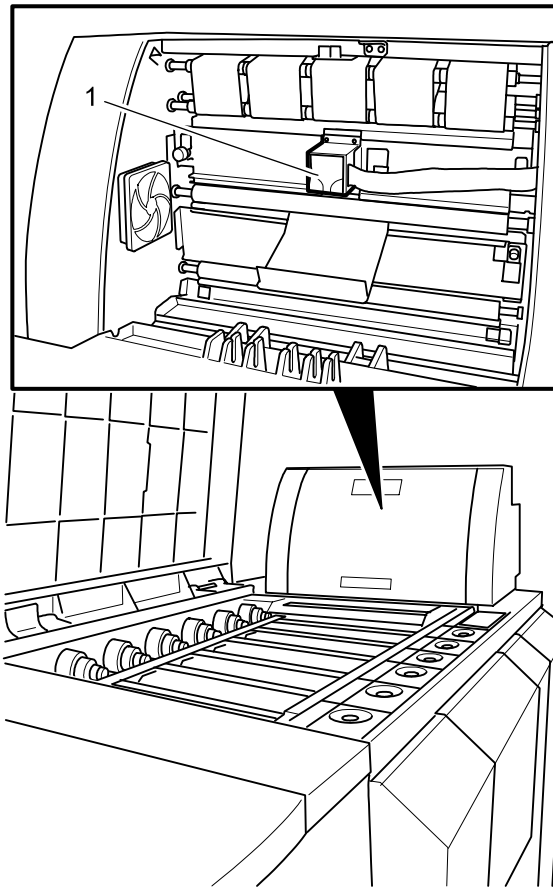
The built-in densitometer (1) above the dryer automatically measures the test print.

Starting the Equipment

IMPORTANT: *Before starting the equipment, insert the loaded paper magazines.*
                Any film mask may be in the equipment when it is started.

The two methods for starting the SRP 30 Laser Printer are:

- Automatically, by means of the integrated timer – the preferred procedure
- Manually, by means of the main switch – the alternate procedure

Automatic Startup

To prepare the equipment to start automatically by way of the timer, set the timer to workdays, starting times, and off days. See *Defining Times for Startup, Shutdown, and Sleep Mode*, in Chapter 4.

Manual Startup
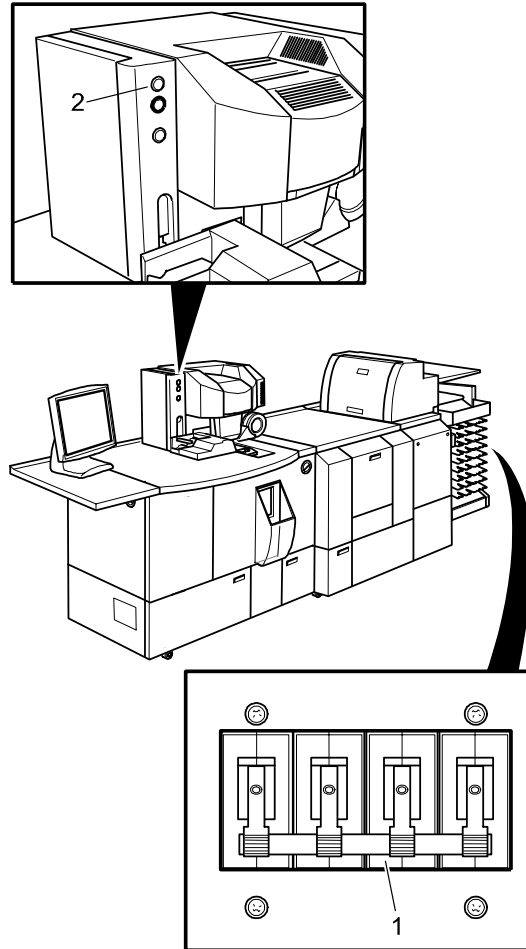
1. Turn on the main circuit breaker (1).
2. Press the ON button (2).

The ground fault interrupter (GFI) switch below the main circuit breaker always remains on.

System Startup Status

After automatic or manual startup, the equipment heats the solutions and the dryer to nominal temperatures. During this phase, the monitor displays:

- The progress of the heating process
- The remaining time until the equipment is ready to operate
- Any error messages
- The **Stop** button to shut down the equipment correctly any time during the startup process

The equipment is ready for operation after the solutions and the dryer have reached nominal temperatures.

Readiness for Operation

User Login

After the equipment has been started and heated up, the **Login** screen appears, where you enter your user name and password (four numbers). The user name is preset if you have been defined as the first user who must enter a password.

After you enter the user name (if required) and password, the **Start** screen appears. The **Start** screen appears immediately after warm-up if the first user is logged in automatically (the system does not check for a password). The **Start** screen also appears after a new user has logged in.

Start Screen

After you log in, the menu bar with the five main menus appears.
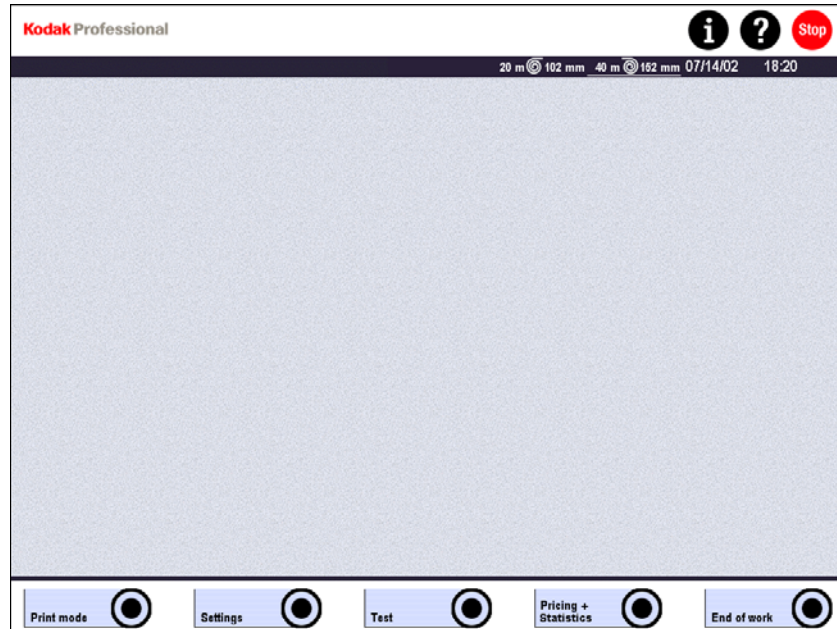
- **Print mode** offers all functions for image editing and printing. (See *Production*, Chapter 6.)
- **Settings** lets you create print configurations, enter system-specific parameters, and define order prices. (See *Settings*, Chapter 4.)
- **Test** lets you test the equipment prior to the production start and during production. (See *Tests*, Chapter 5.)
- **Pricing + Statistics** lets you price orders and print price labels if the Pricing option is installed (software and label printer). Additionally, this menu provides access to statistics related to the daily and total counters (prints, index prints, orders, scanned frames, and paper consumption).
- **End of work** lets you shut down the equipment completely or partially (Sleep mode). A different user can also log in from this menu.

NOTE: In the **Start** screen and in all screens that follow, only the functions that correspond to the user profile are displayed. Functions that are not available appear in gray.

If a function is not available, either:

- The logged-in user does not have permission to use this function, or
- The software is not installed.

For more information, see *User Administrator: Defining Users and User Rights* in Chapter 4.

End of Work

Changing Users
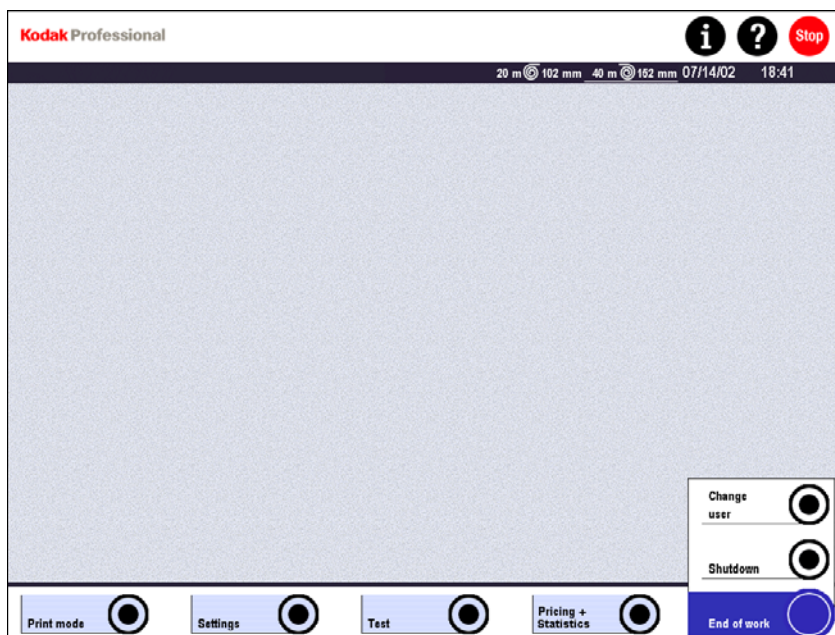
To change users, you must first log out.

1. Select **End of work** on the menu bar.
2. Touch **Change user**.
3. Touch **Logout**.

Work can only continue if you follow these steps to log in.

1. Select the name of the next user.
2. Enter the password (four numbers).
3. Touch **Login**.

If a different language is allocated to the new user in the system setup, all text is displayed in that language.

Shutting Down

The two methods of shutting down the SRP 30 Laser Printer are:

- Automatically, by way of the integrated timer – the preferred procedure
- Manually, by selecting **End of work** on the menu bar – the alternate procedure

Automatic Shutdown

The equipment shuts down automatically if you enter no input within a preset time period after system start.

To define the preset time period, see *Defining Times for Startup, Shutdown, and Sleep Mode* in Chapter 4.

Manual Shutdown

Shutdown is possible with every inserted film mask.
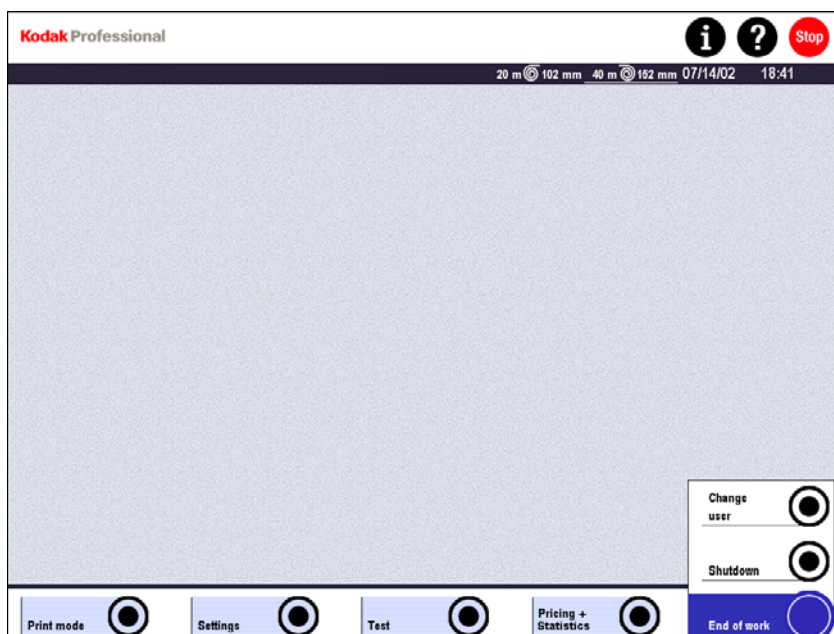
1. Select **End of work** on the menu bar.
2. Touch **Shutdown**.
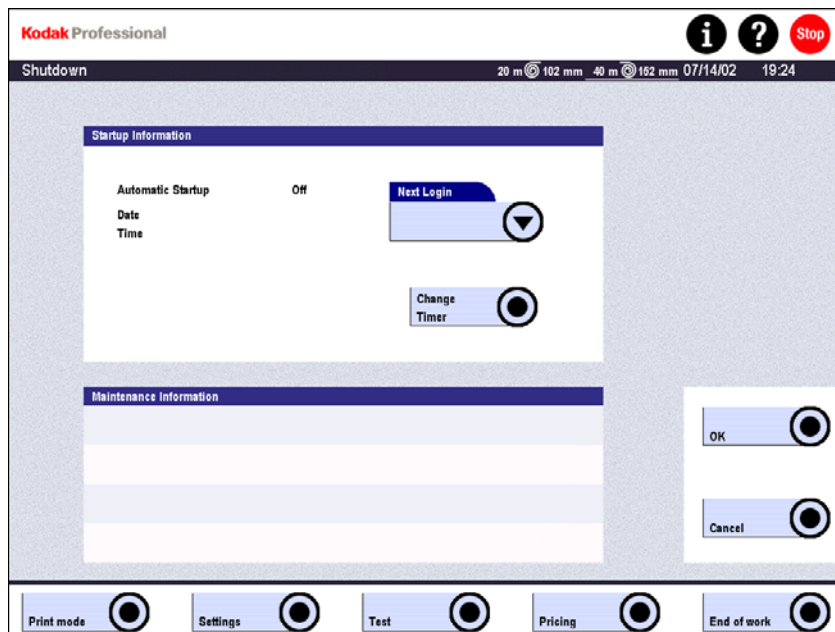
3. Change the start information in the display, if necessary:

- **Change Timer**

  Change the date and time for the next startup in the opening screen.

- **Next Login**
  Select the user for the next startup.

NOTE: Changes of the start time and the user are only valid until the next startup. Permanent changes are only possible using the equipment settings.

4. Perform the daily maintenance procedures. (See *Daily Maintenance* in Chapter 8.)

5. Reply to all checks, if any:

   a. If unfinished APS orders exist, answer the query as to whether they should be saved. Orders that are not saved are lost.

   b. If orders exist that are not priced, confirm the warning message. All finished orders are saved, whether or not they are priced.

The equipment is shut down and turned off.

Turning Off the Equipment Partially (Sleep Mode)

It is possible to turn off parts of the system so that only the main computer is running. This "Sleep" mode allows for statistical checks, locally or by remote control, before the equipment is turned off completely. While in Sleep mode:

- The printer and paper processor are OFF.

- The main computer is ON.

You can activate the Sleep mode for the desired weekdays and enter the switch-off time of the main computer. When the Sleep mode is activated, the turn-off time of the main computer is indicated on the monitor.

For more information, see *Defining Times for Startup, Shutdown, and Sleep Mode* in Chapter 4.

Description of the Operating Controls

Buttons and Lamp on the Main Computer
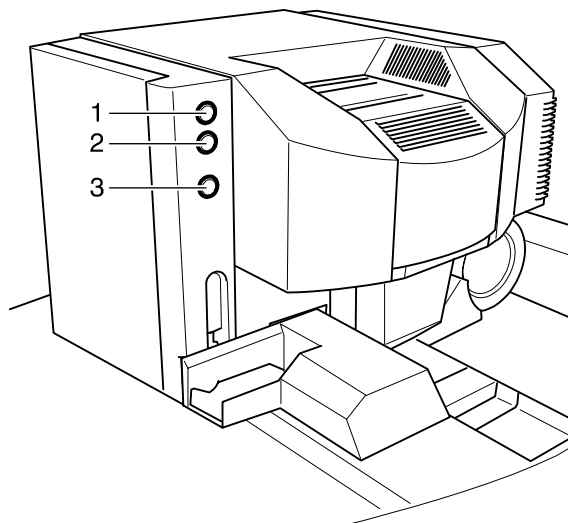
There are two buttons and one lamp on the main computer:

- **ON** button (1)

  If the system is shut down by **End of work – Shutdown**, it remains in the timer mode until the next automatic startup. If you must operate the system before the next automatic startup time, press the **ON** button. The system will then start up. You can also press the **ON** button to initiate a reset.

- The timer lamp (2) lights if the system is in the timer mode after **Shutdown**.

- **Film stop** button (3)

  If you suspect a film jam, press the **Film stop** button to stop the system. The film stops during scanning (orders are interrupted and a reset of the system begins). The Reset confirmation window opens on the screen. Wait until the paper transport in the printer is empty. Then touch **Yes** to confirm.

For more information, see:

- *Automatic Startup* on Page 2-11.
- *Resetting the Equipment* in Chapter 7.

Touch-screen Monitor

The operation of the equipment is menu-driven by a touch-screen monitor. Activate the functions by touching the touch-sensitive buttons on the screen.

Specifications:

- 15-inch LCD screen
- SVGA resolution 1024 x 768 pixels
- Screen-refresh frequency > 75 Hz

For more information, see *Screen Structure* on Page 2-21, *Touch-sensitive Buttons* on Page 2-24, and *Menu Overview* on Page 2-31.

Screen Structure
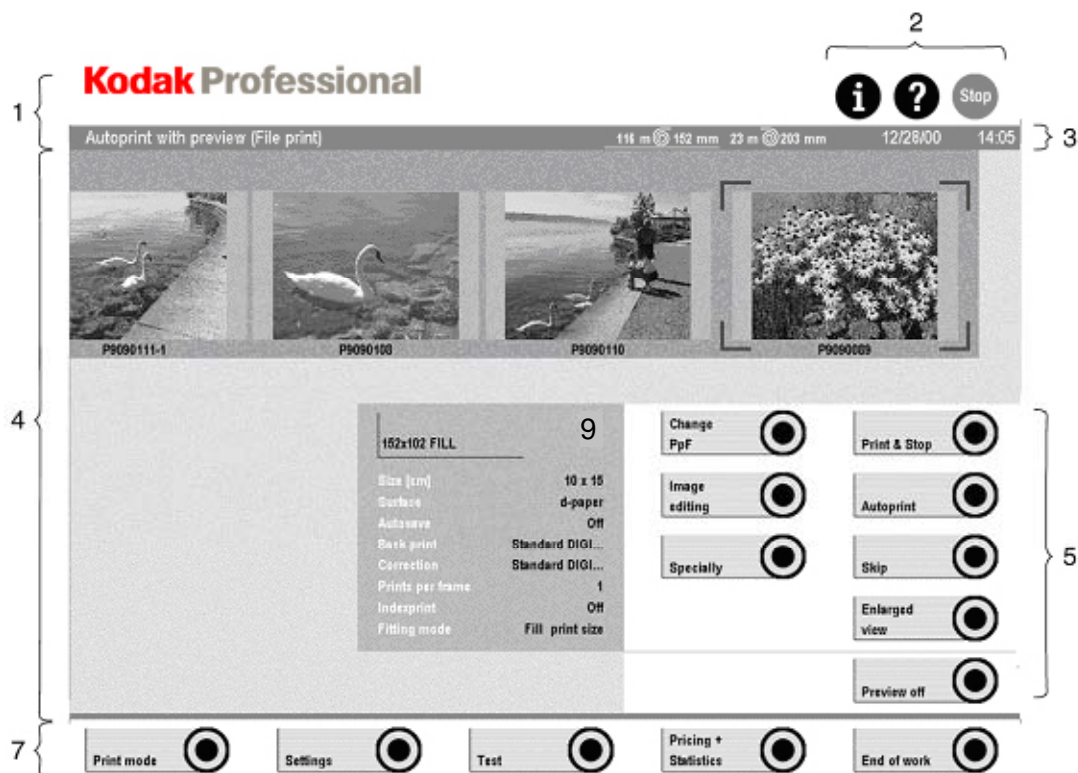
NOTE: This operator's guide refers to the touch-sensitive fields of the touch-screen monitor as "buttons."

The screen is divided into several areas:

1 Information area with
2 fixed buttons (**i**, **?**, **Stop**) and
3 status line

4 Active screen with
5 buttons and
6 a popup window, if available (not shown in the above example)

7 Menu bar with five main menus

The areas 1, 2, 3 and 7 are always displayed. However, the menu bar (7) cannot always be used. When certain errors occur, it is disabled until the errors are removed.

Information Area

The Information area includes the fixed buttons (**i**, **?**, and **Stop**) and the status line.
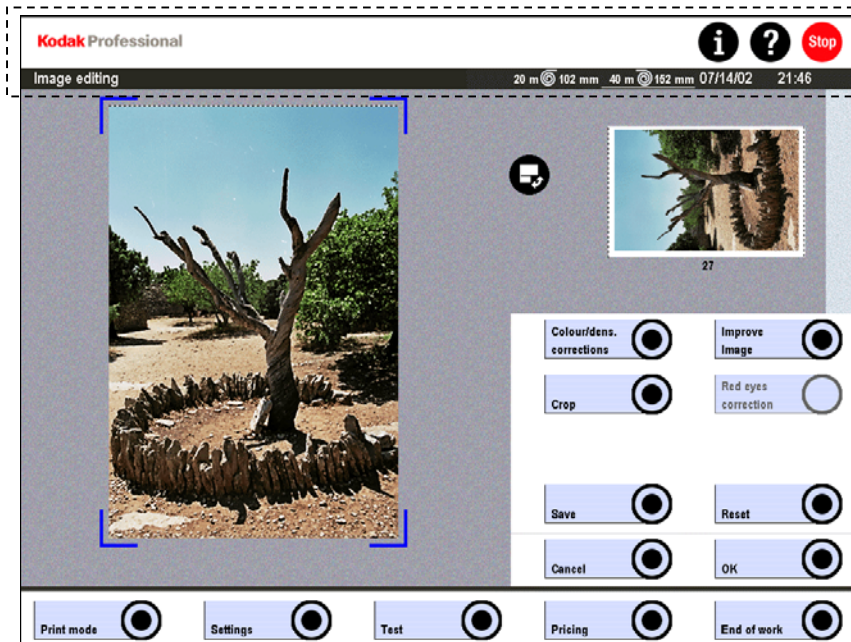
Because the fixed buttons are always accessible, you can open the Info and Help screens at any time. For more information, see *Info and Help* on Page 2-40.

The fixed buttons are described below.

i   Status information

?   Context-related help for all screens and error messages

Stop   If the system does not respond to operator entries, you can use this button to initialize a software reset. The entire SRP 30 Laser Printer is stopped (orders are interrupted and all major assemblies are reset).

For more information, see *Resetting the Equipment* in Chapter 7.

The display in the **status line** includes:

- Information, warnings, and requests
- Error messages

The messages in the status line require different actions:

- Some messages let you continue working without confirmation or action.
- Some messages can be ignored several times until the system forces you to act.
- Error messages must be resolved before work can continue.

All error messages are saved. You can view a list of the messages by touching **i**, then **Error list**. Below is an example of an error list.
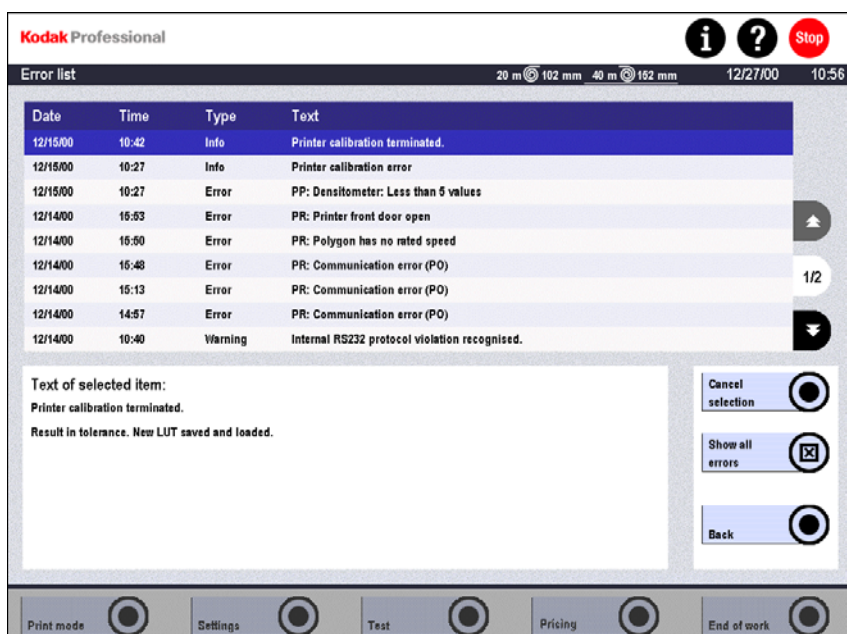
For more information, see *Correcting System Conditions* in Chapter 7.

Touch-sensitive Buttons

NOTE: Only one screen is active. It is not possible to open several screens at the same time.

The buttons in areas of the screen other than the Information line (**i**, **?**, and **Stop**) change with the functions of the associated menu.
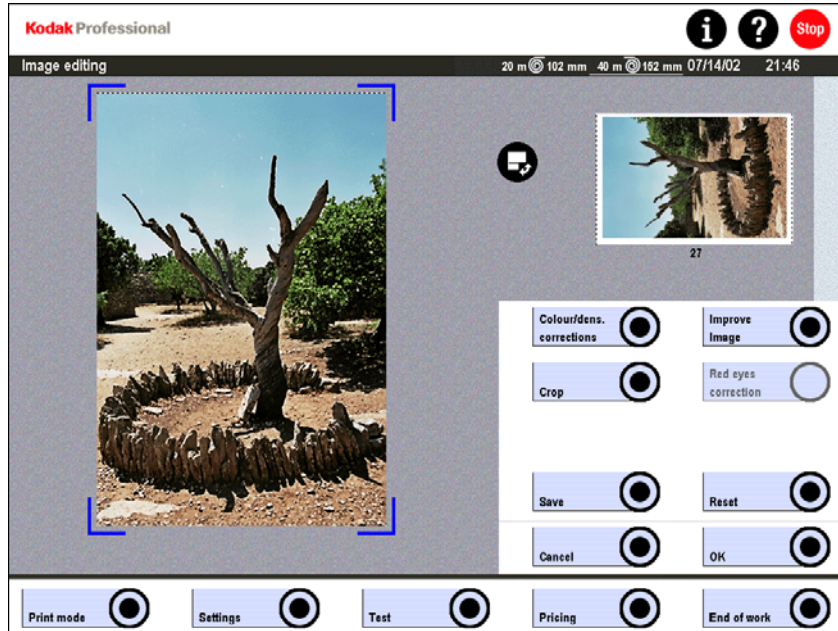
Touch the buttons to initiate the desired action, such as to:

- Select a submenu from the main menu bar
- Open a drop-down menu and make a selection
- Start, interrupt, or stop an action
- Select the desired configurations, images, and text in displayed selection windows
- Perform tests by way of the keyboard shown on the screen

All screens and associated buttons are explained in detail in this guide. Additionally, the online Help feature, which you initiate when you press **?**, provides a detailed explanation for each screen.

Drop-down Menus

When you touch a button that lets you make a selection, a drop-down menu opens. If there are more entries than the display can show, arrow keys appear for scrolling.

For example, when you select a paper-width configuration, a drop-down menu appears with all configurations that you can select for the inserted paper width.
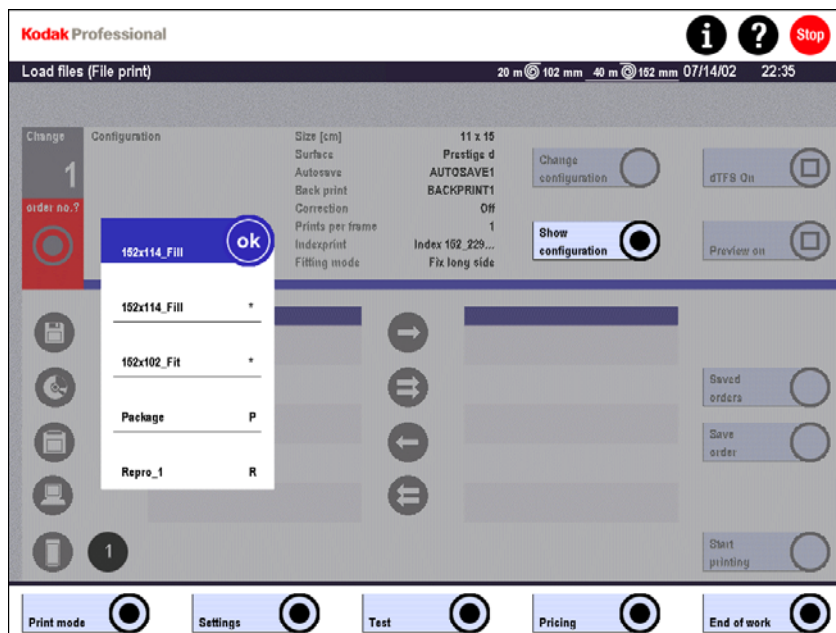
1.   Select the desired configuration from the list.

2.   Touch **OK**.

Pop-up Windows

Pop-up windows open on the active screen if you must make a confirmation or perform an action.

- A Reset pop-up appears when you press the **Stop** button on the main computer (or the **Stop** button on the touch screen) when a suspected film jam occurs. The film is moved out and the order is interrupted.

  To prevent subsequent paper jams, empty the paper transport in the printer before you press **Yes** to initiate a system reset.

- An Error pop-up appears when either incorrect (or inconsistent) entries or system errors occur. You must remove these errors before work can continue.
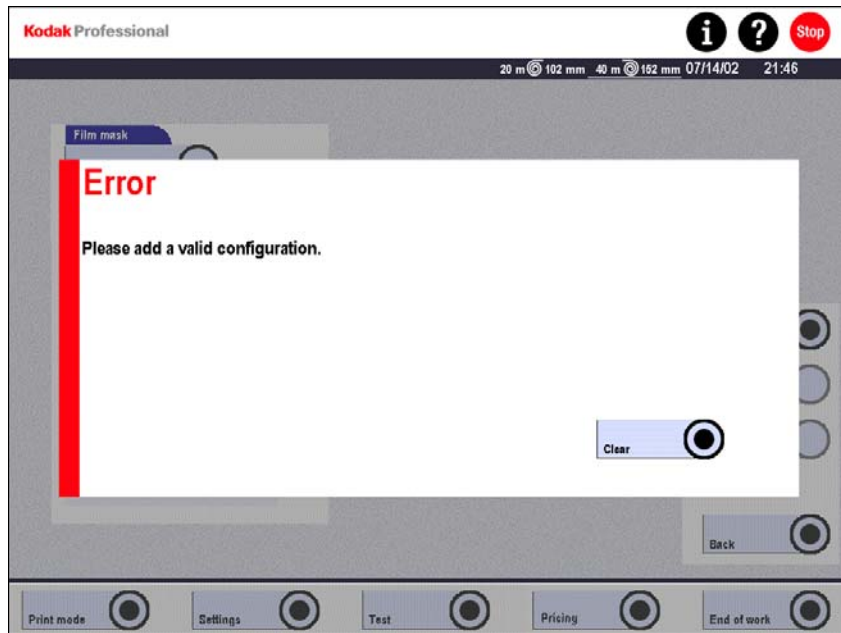
- A Warning pop-up appears if a risk of data loss occurs.
- An Info pop-up appears to provide additional status information.
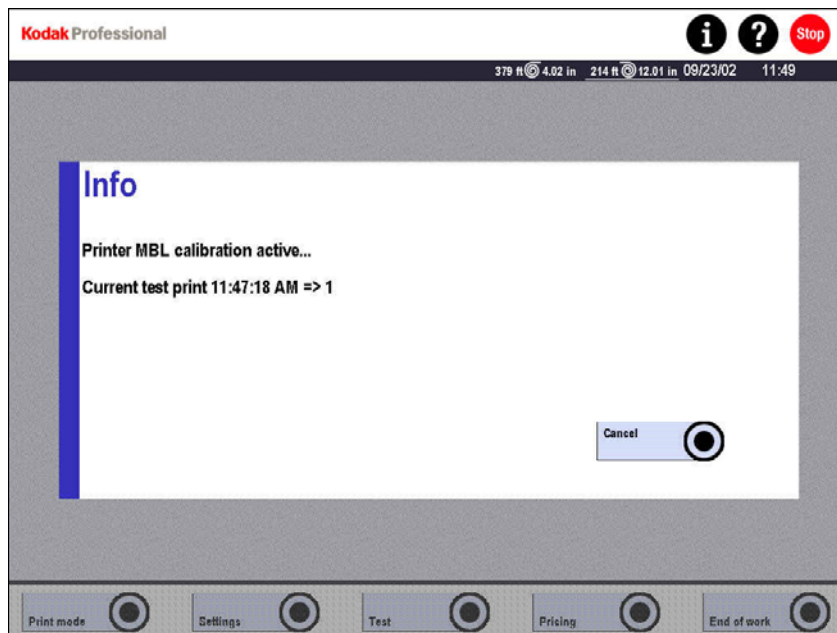
- A Query pop-up appears for you to avoid potential problems.
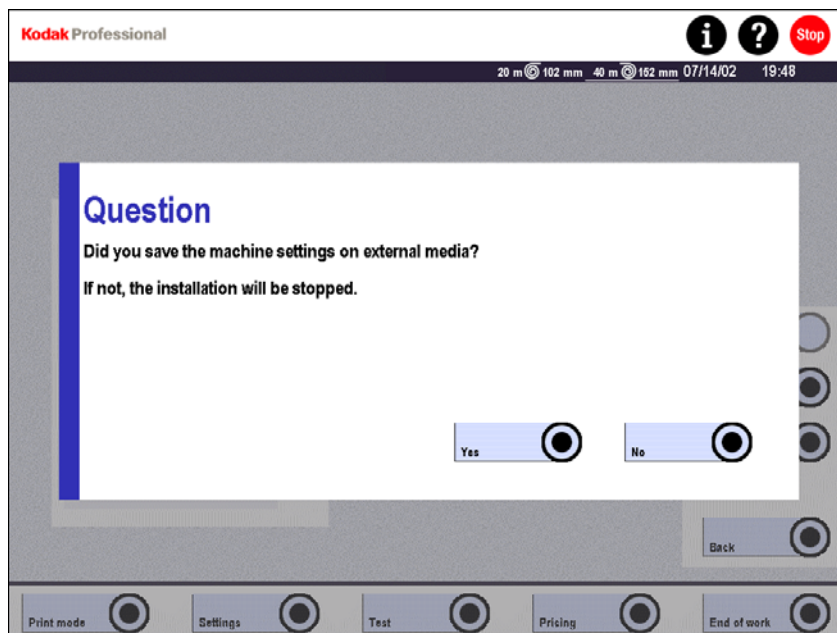
Input Screen

When you must enter text, numbers, or special characters, the Input screen opens.
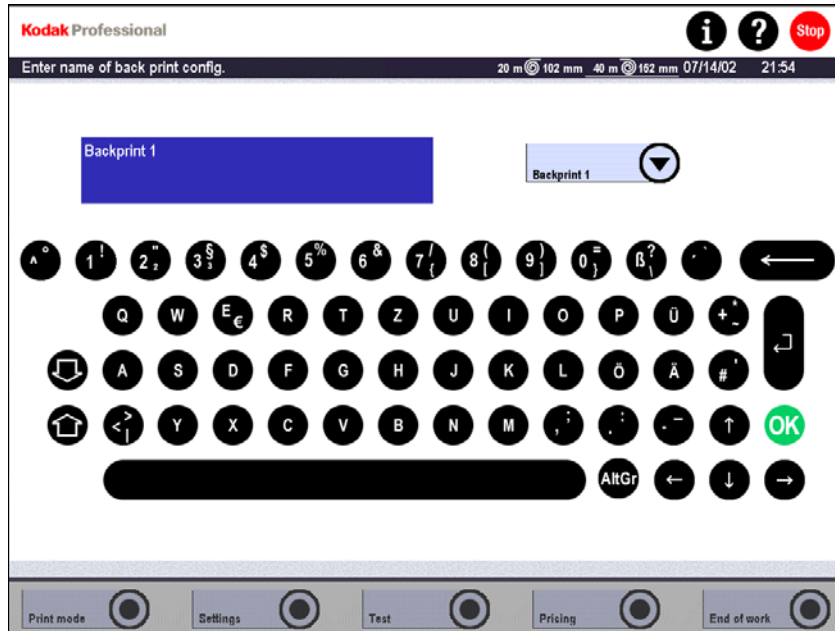
- The image of a keyboard includes national special characters in accordance with the selected keyboard allocation. (For the selection of the keyboard allocation, see *User Interface* in Chapter 4.) Touch a button to select the corresponding character.
- Typed characters appear in the blue field and in the button above the image of the keyboard. This lets you see how much of the entered text will appear in the button when you select it from a drop-down menu.
- The **OK** button lets you terminate your entry and return to the previous menu.

Numeric Keypad
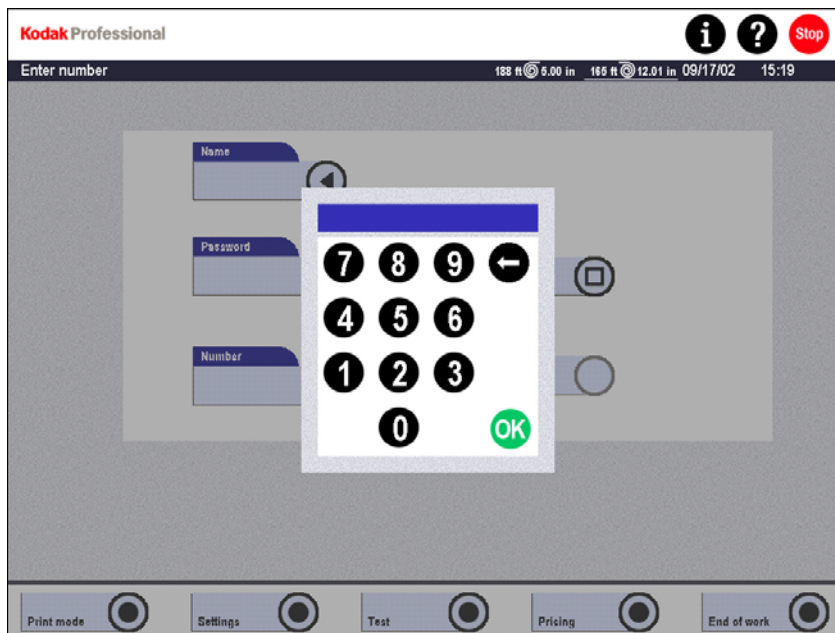
Use the numeric keypad in the display to enter the desired number and touch **OK** to confirm.

Reorder Keyboard

The Reorder keyboard on the touch screen lets you edit Reorder lists.

Key	Function
YMCD	Color or density corrections: Yellow, Magenta, Cyan, Density
ACT, DCT, SHP	Corrections: Area contrast (ACT), Detail contrast (DCT), Sharpness (SHP)
, **SAT**	Comma as separator of frame numbers Correction: Saturation (SAT)
0 to **9**	Entry of digit numbers
-	• Minus sign for the entry of negative corrections • Hyphen for the entry of frame numbers
A, X	Letters for the DX code
← →	Horizontal navigation in the Reorder list
↑ ↓	• Vertical navigation in the Reorder list • Vertical scrolling in the configuration Pull-up
OK	Terminating the entry of a Reorder list
↵	• For Pull-up transfer of the selection + Pull-up closed • For Pop-up confirmation of the order number
DEL	• Deletes a position in the negative number field (example: 1A-3A, 13A) • Deletes the whole number in the PpF (Prints per frame) field (example: 10) The delete key is inactive in the configuration and correction field. Wrong entries in the correction field are corrected by reentry. If no correction is

desired, 0 must be entered.

Menu Bar

The main menus are always accessible, except when either a pop-up window is open or the Help screen is open.

Menu buttons that appear gray indicate that the function is not available.

The structure of the menus is described in the next subsection, *Menu Overview.*

Menu Overview

Main Menus
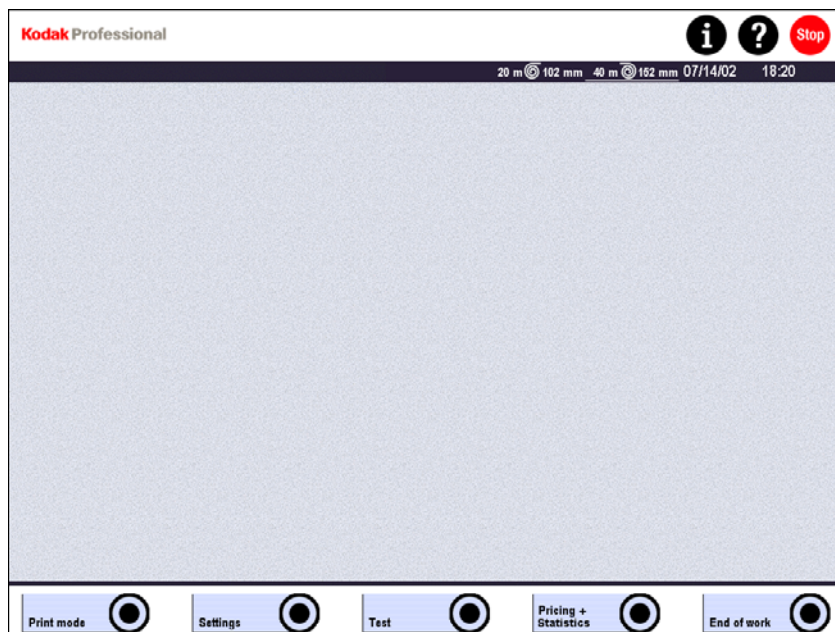
The following main menus are available on the menu bar:

- **Print mode**
- **Settings**
- **Test**
- **Pricing + Statistics**
- **End of work**

Other menus are available by pressing **i** and **?**:

- **Status Information**
- **Help**

All menus and associated screens are outlined on the following pages.

Print Mode Menu
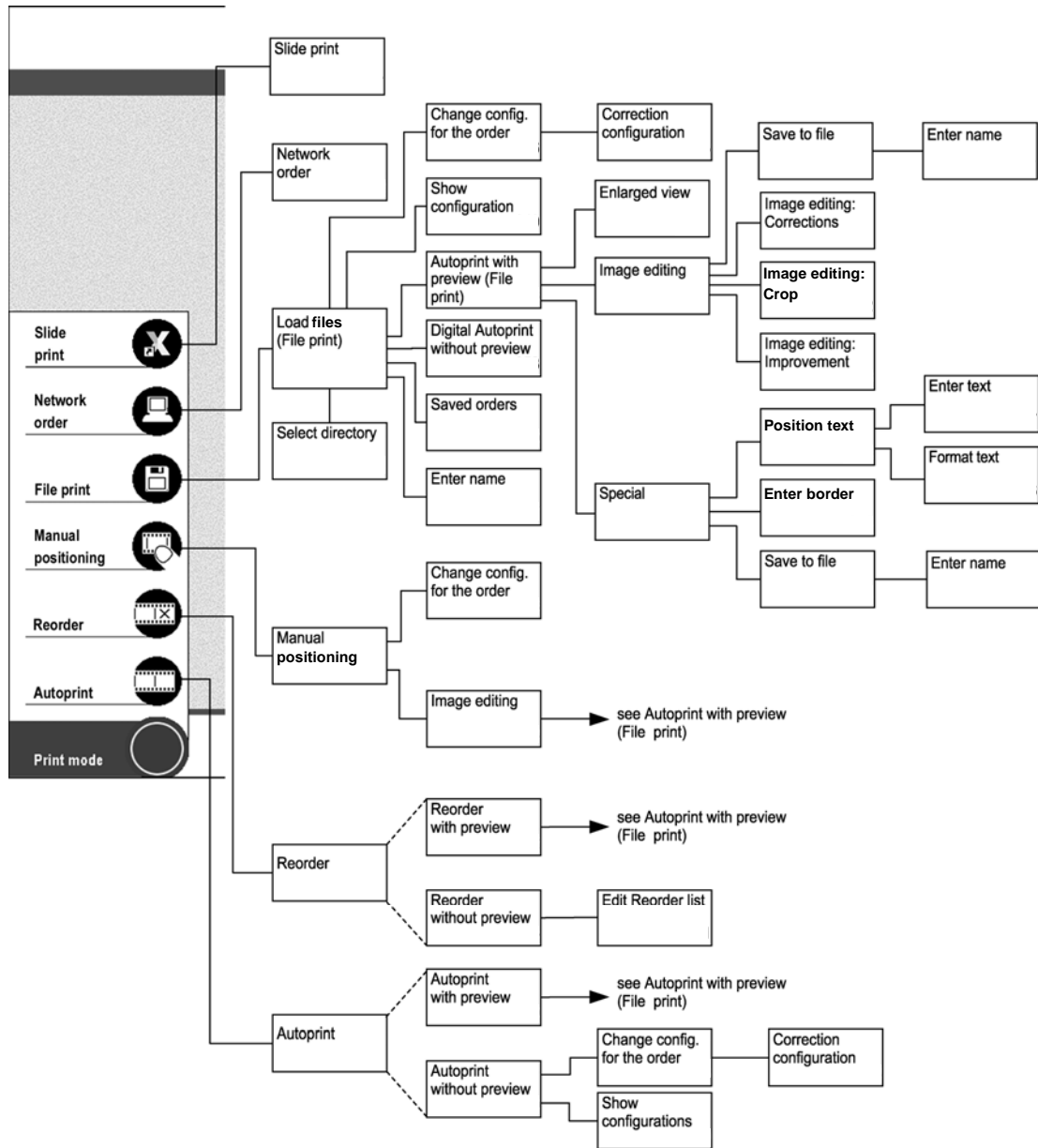
Settings Menu without Equipment Settings
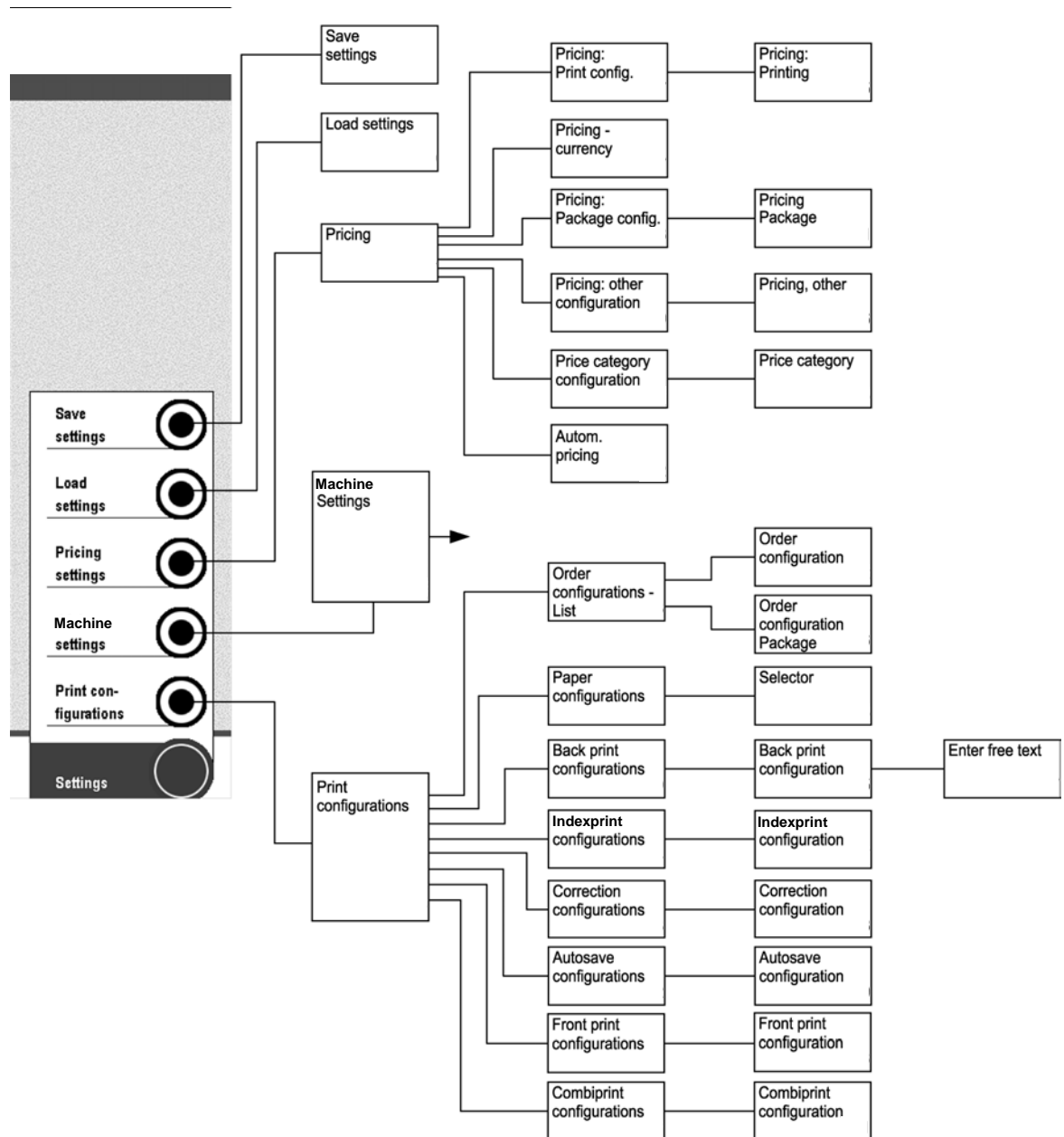
Settings Menu with Equipment Settings
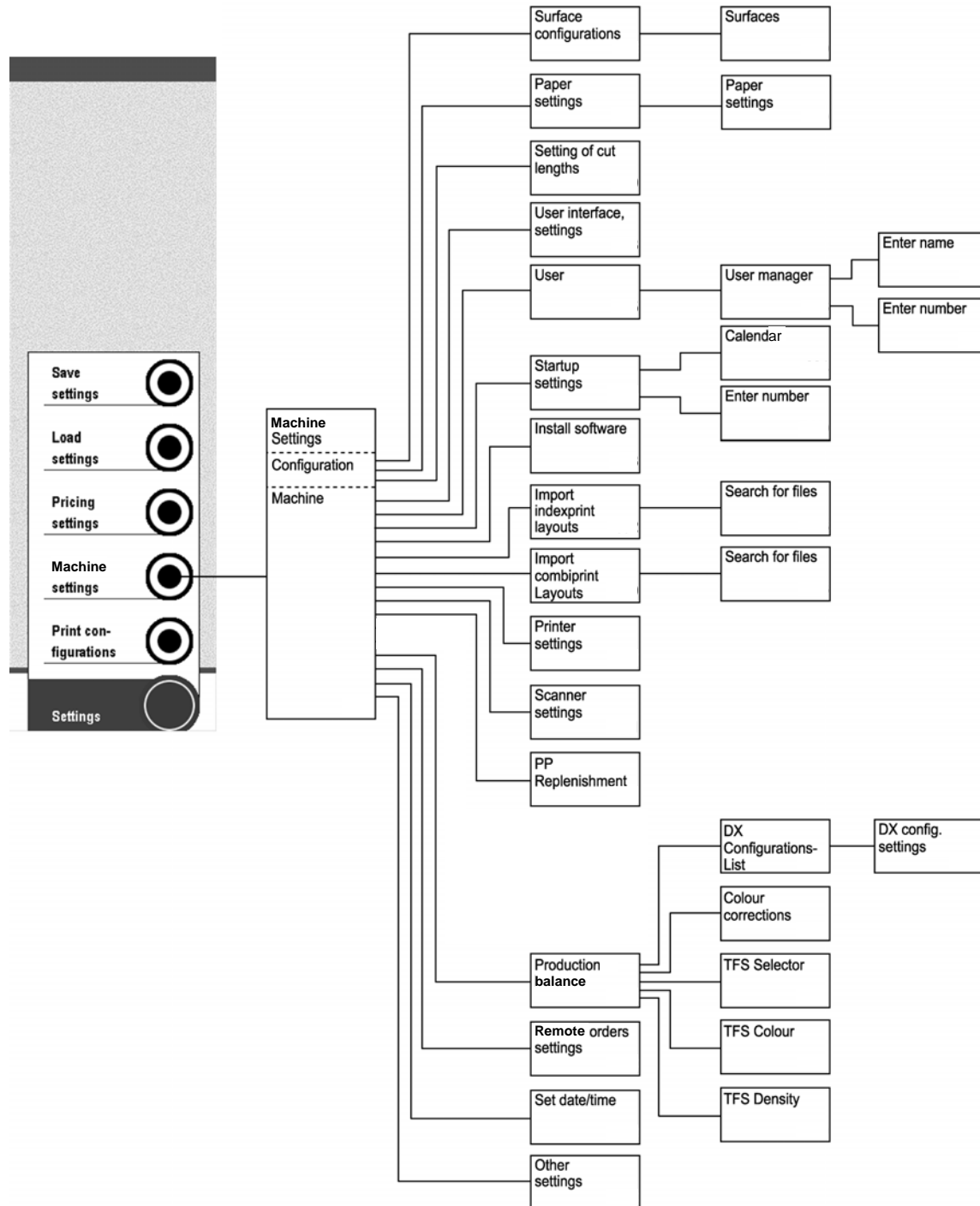
Test Menu

Pricing + Statistics Menu

Menu items			
Save Statistics		Copy statistical data	
Show Statistics		Statistics	
Pricing order		Pricing orders	Pricing - Details
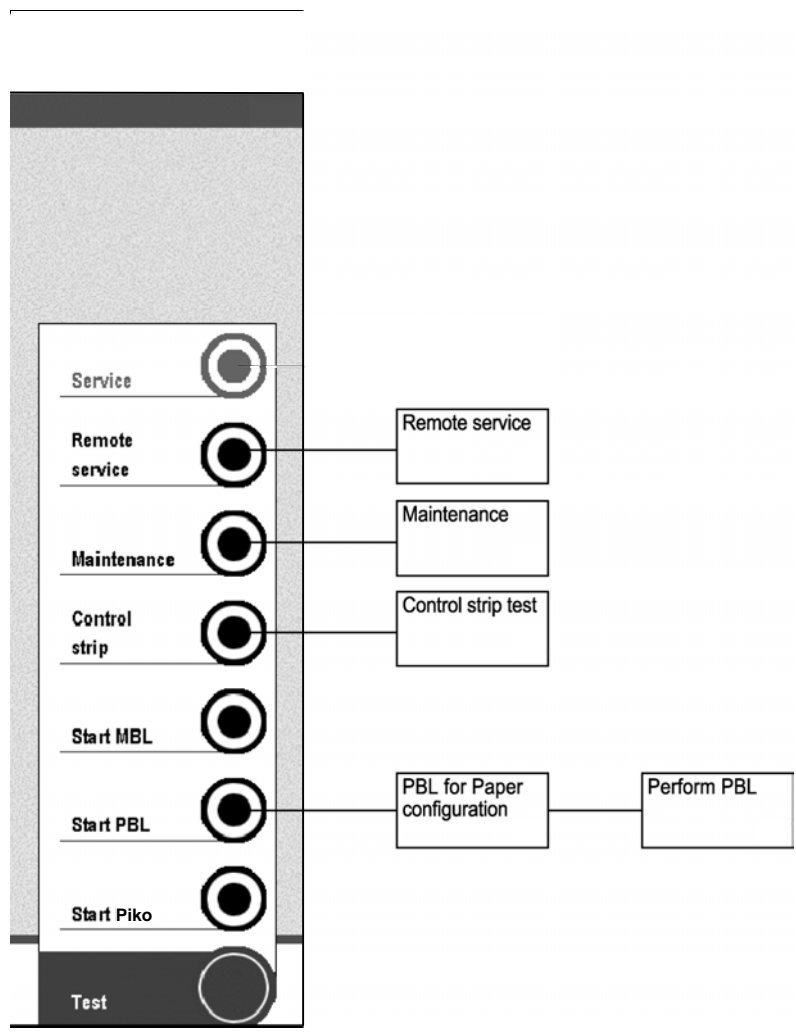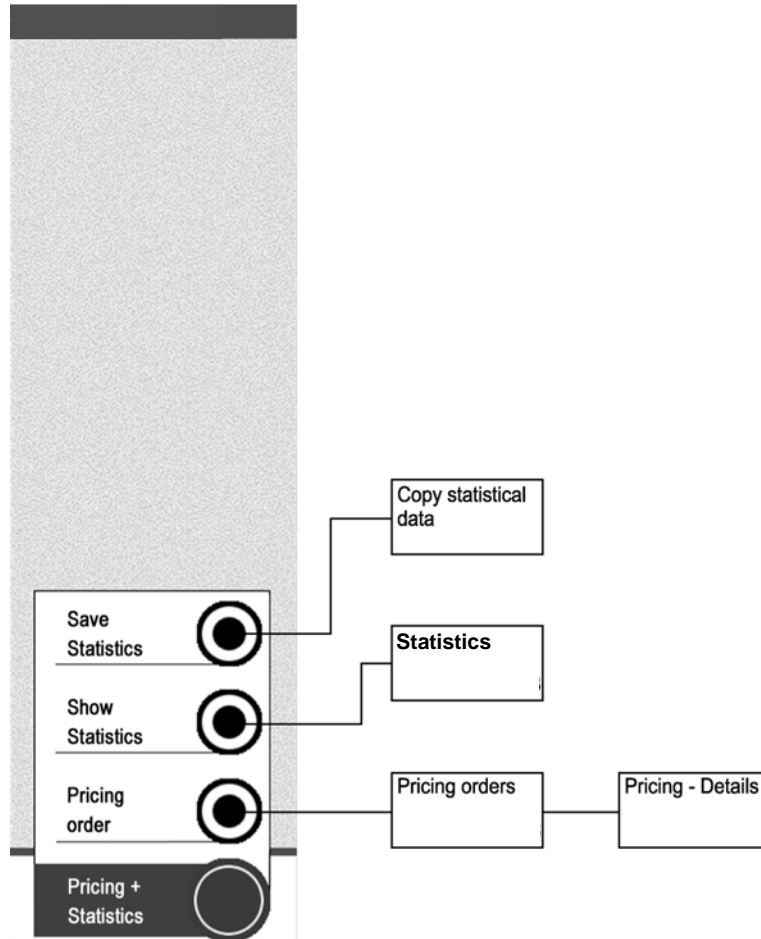
End of Work Menu
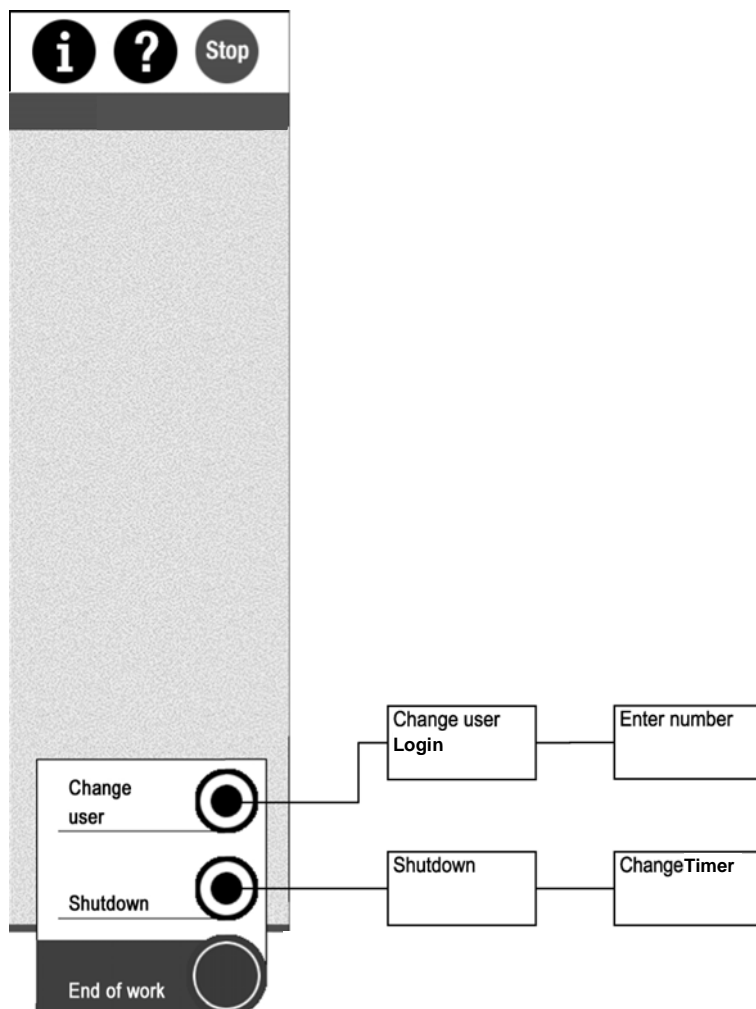
Status Information and Help Menus

Help screen

Film drive Info

Info Paper Processor

Info Order

Info Printer

Error list

Version Info

End of work
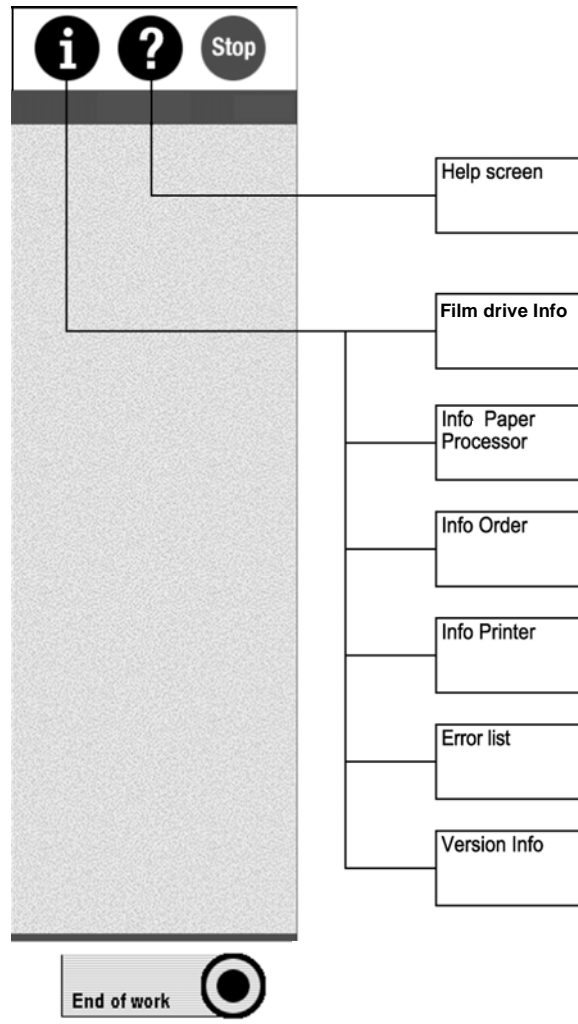
Other Screens

These screens are accessible at any time. They are displayed when:

- Configurations can be modified on demand with the **Display Config.** button
- Text input (user names, back print text) is required, by touching the appropriate field
- Number input (order numbers, passwords) is required, by touching the respective field
- Errors occur that require removal before work can continue
- You must make a decision

Info and Help

Information is available in every screen by pressing **i** in the Info field.

The **Info** screen displays the operating hours of the scanner lamp and the laser. You can reset the counter for the operating hours of the scanner lamp in the **Test / Maintenance** menu.

For all other information, a separate screen opens.
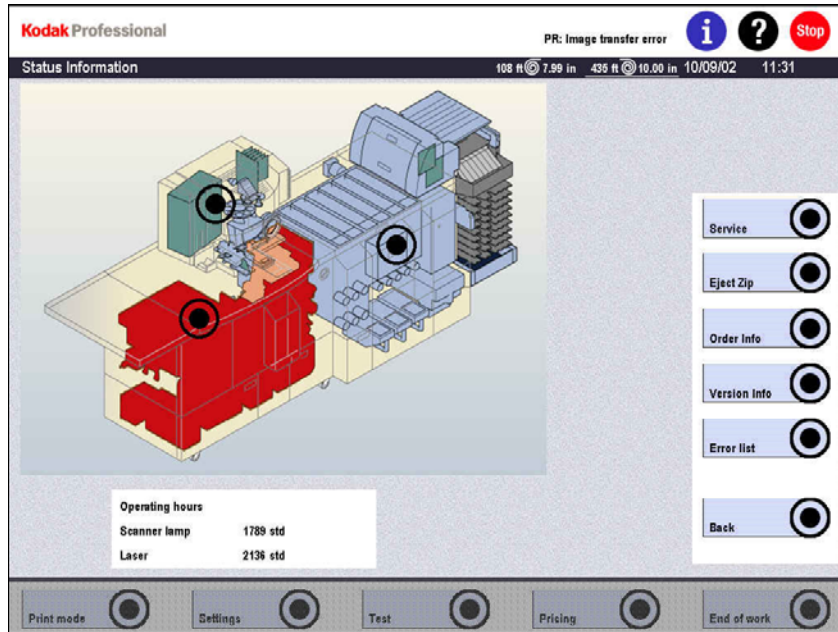
- To open the **Film drive Info, Printer Info,** and **Paper Processor Info** screens, touch the module in the illustration that appears on the touch-screen.
- To open the **Order Info**, **Version Info**, or **Error list** screens, touch the buttons with the respective names.
- To close the **Info** screen, touch **Back**.

NOTE: When an error occurs, the module concerned appears in red.
Touch the button on the module to localize the error more precisely. The
defective component is shown below (in red).
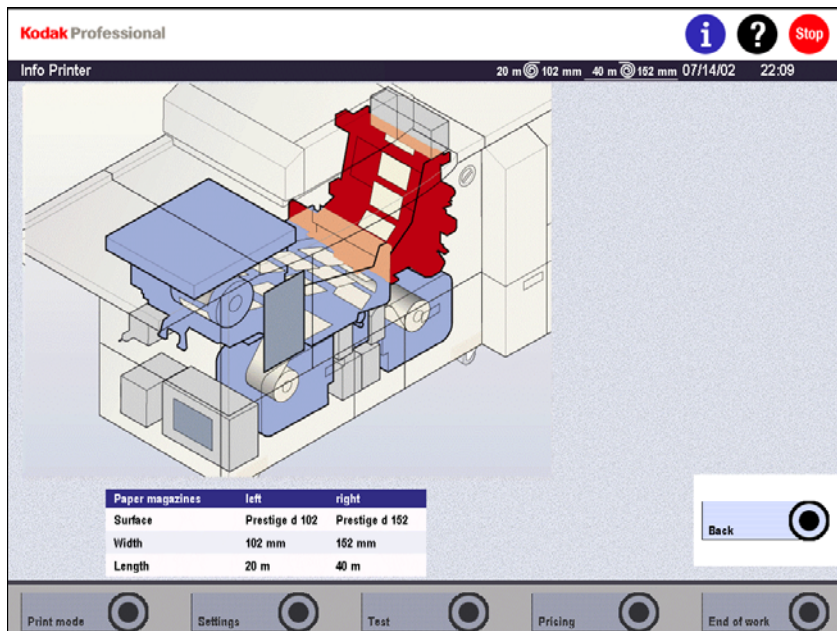
Film Drive Info

The **Film drive Info** screen provides a graphic representation of the film advance.

If an error occurs, the corresponding component of the film advance appears in red.
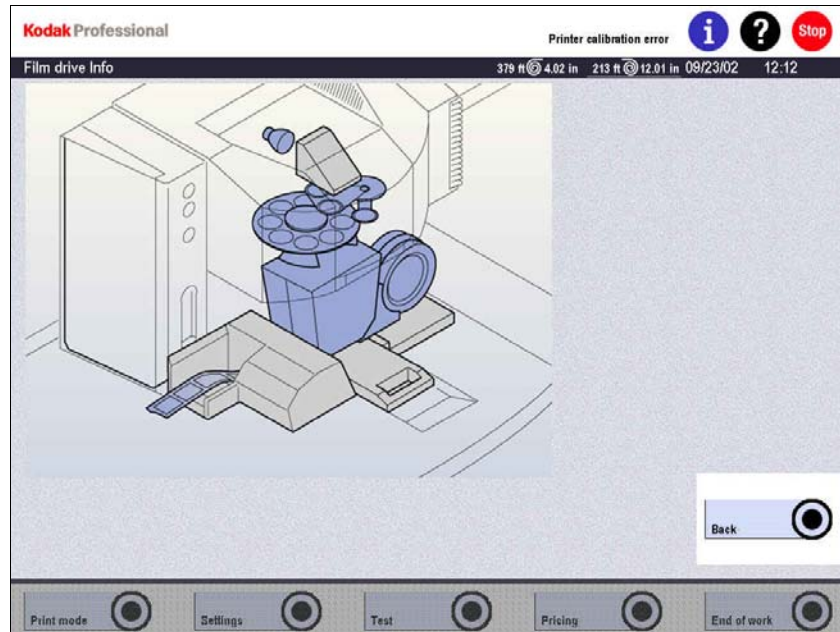
To return to the **Info** screen, touch **Back**.

Info Printer

Info Printer is a graphic representation of the paper transport. This screen shows the width, surface, and residual length for each paper magazine.

If an error occurs, the corresponding component of the printer appears in red.
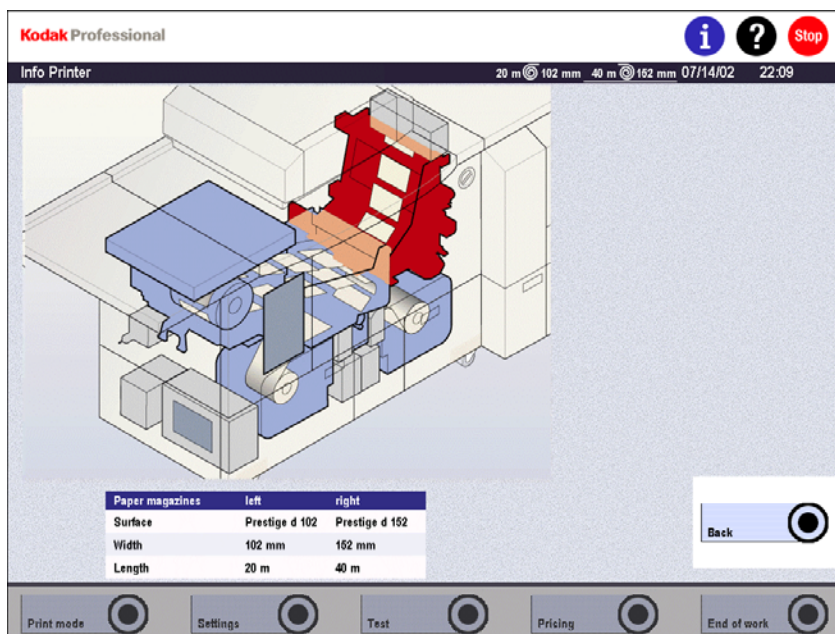
To return to the **Info** screen, touch **Back**.

Info Paper Processor

Info Paper Processor is a graphic representation of the solutions and the dryer. This screen also displays:

- Number of prints moving through the paper processor
- Order numbers of the orders in the paper processor
- Time remaining until the last print will exit
- Reference and actual temperatures of the solutions and the dryer

If an error occurs, the corresponding component of the paper processor appears in red.
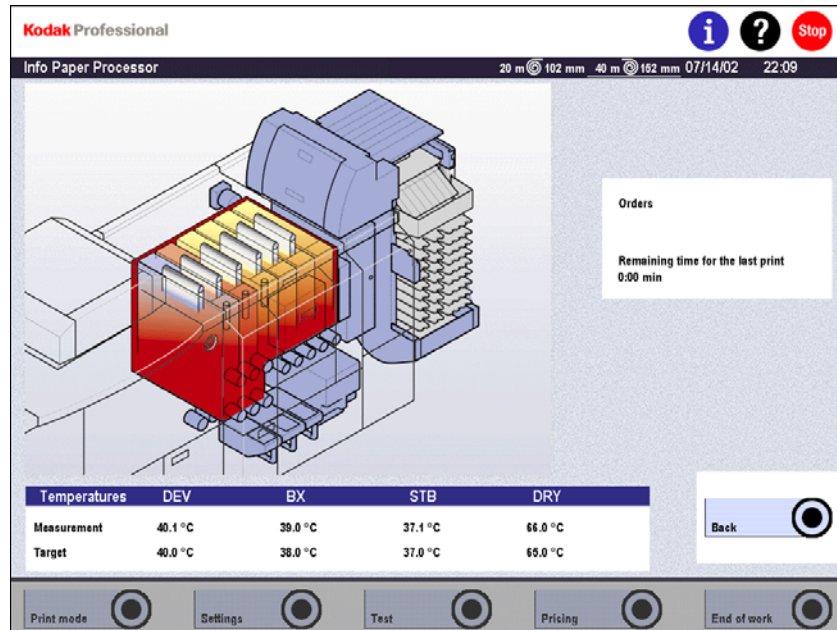
To return to the **Info** screen, touch **Back**.

Info Order

The **Info Order** screen displays the number of orders that are not yet processed:

- APS reorders
- Network orders
- Orders stored for file prints (Backup)
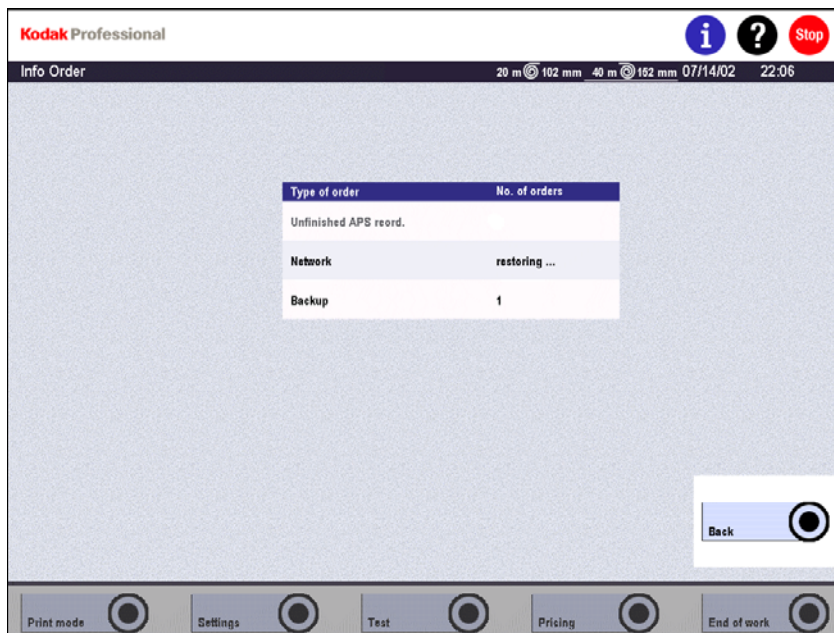
To return to the **Info** screen, touch **Back**.

Version Info

The **Version Info** screen displays:

- Current versions of the installed software and firmware
- Serial number of the hardware
- License ID of the equipment
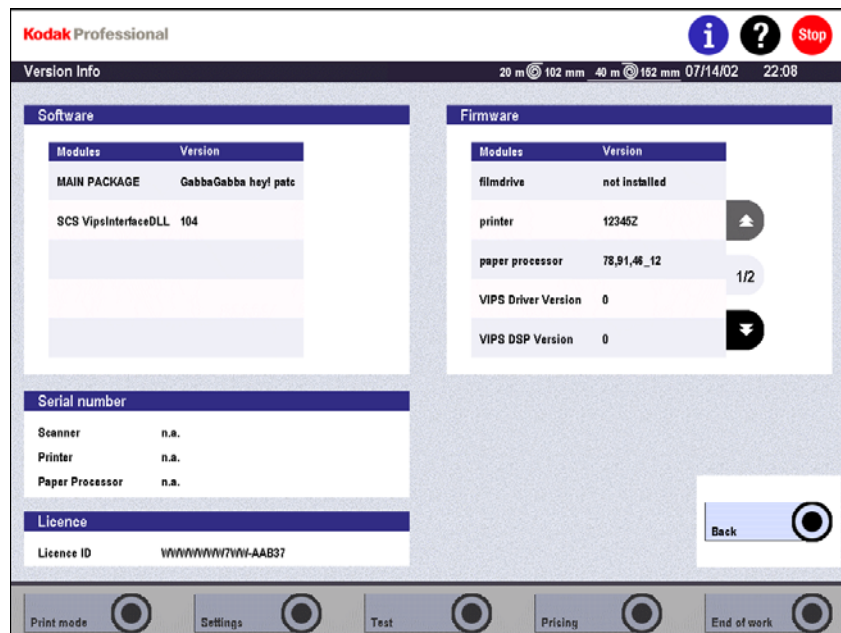
To return to the **Info** screen, touch **Back**.

Error List

All error messages shown in the status line are saved. To view the error list, touch **i**, then **Error list**.
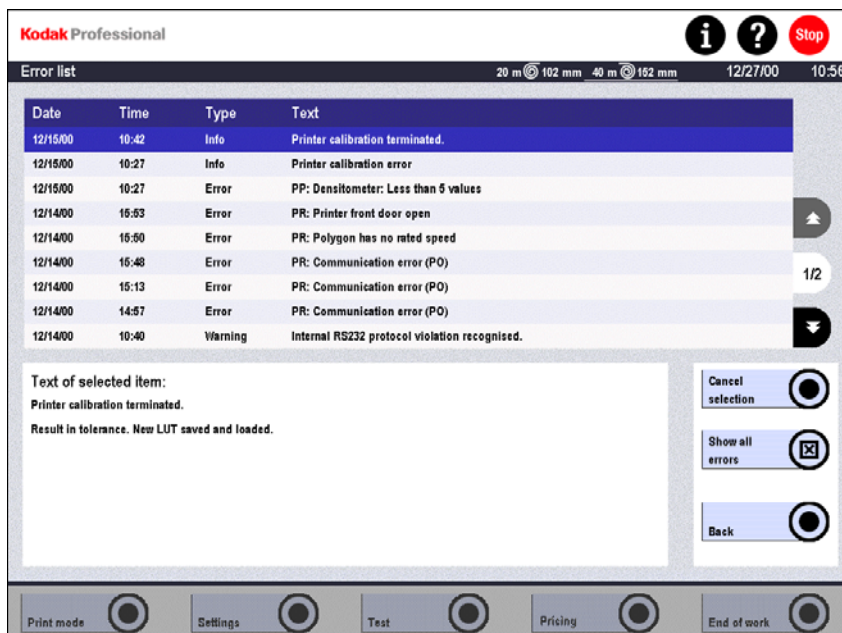
The **Error list** screen shows the date, time, type, and text for each error.

- Disable **Display all errors** if the error list only shows the errors encountered since the last start or reset.

- If the error message is not displayed completely in the error list, touch the message to display the complete text below the error list.

- To delete the message from the list, mark the message and touch **Remove selection**.

- To return to the **Info** screen, touch **Back**.

The error list and error removal are described in *Correcting System Conditions*, Chapter 7.

Help

You can access Help from every screen that has a **?** in the information area. (See *Screen Structure* on Page 2-21.)

NOTE: For operations requiring significant computing time, the Help window does not display immediately. A pop-up window opens with the following options:

- **Waiting**
- **Cancel**
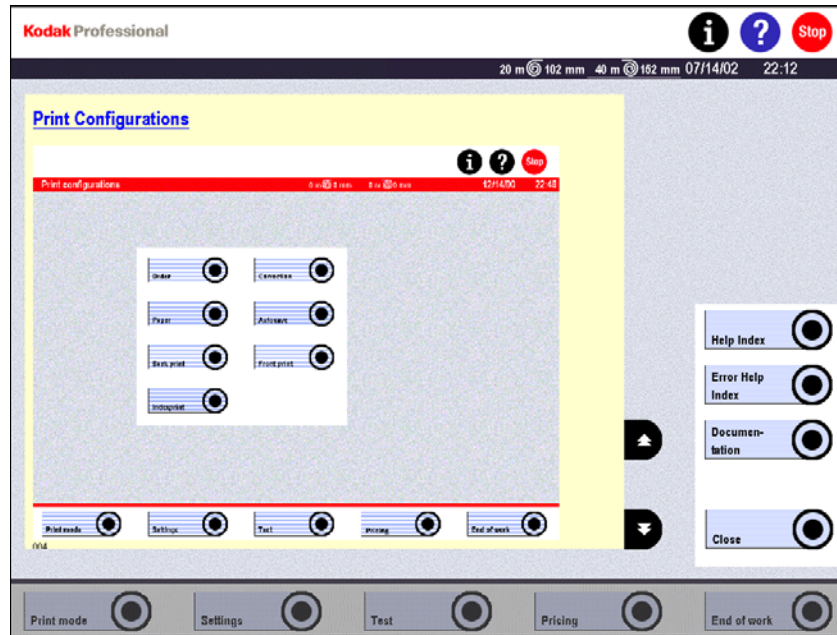
Help text appears for the screen in which you touched **?**. The display includes links to the Help texts.

To go to the pertinent section in the Help text, touch the area concerned (such as the button, field, or list). Touch ↑ to go back.

Other buttons are provided on the right side of the Help window:

- **Help Index**
  To view the associated Help text, touch a keyword in the alphabetic list.
- **Error Help Index**
  This feature is not yet implemented.
- **Documentation**
  Touch this button to view the Operator's Guide.
- Touch **Close** to return to the screen where you touched **?**.

NOTE: In the Help window, **i** and **Stop** are accessible, but the menu bar is not.

Chapter 3 Chemicals

Contents

Preparation of Chemicals

WARNING: *A risk of injury is possible if the cover of the wet section is unlocked (when PUSH is pressed unintentionally).*

- *When opening the cover:*
  Check that the cover lock fully engages in the vertical position.

- *When closing the cover:*
  Support the cover with one hand. Press the unlocking lever (PUSH), and close the cover.

A water temperature of approximately 30°C (86°F) is recommended for the preparation of the individual tank fillings.

The chemicals are prepared directly in the tanks.

CD   SB1   SB3

BX   SB2   SB4
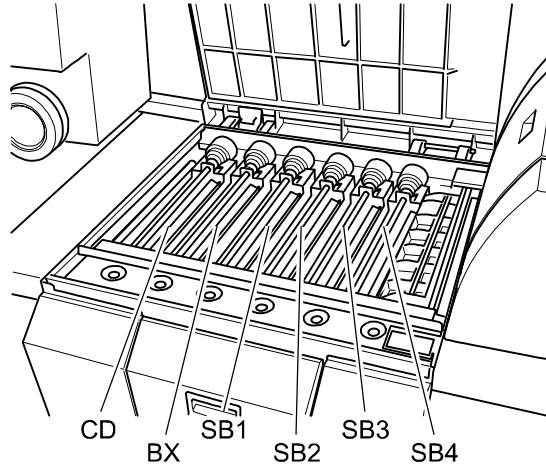
CAUTION: **To prevent contamination of the chemicals, always fill the tanks in the following order:**

SB ⇨ BX ⇨ CD

After each preparation of a solution, thoroughly rinse the containers used for the preparation first with cold water, then with hot water.

Rinsing the Tanks

1. Open the wet section cover.

2. Fill the replenisher tank with water until the lower level sensors are covered to avoid the request for the connection of an EKTACOLOR Processing Cartridge.

3. Fill all machine tanks with hot water.

4. Let the equipment run for a short while to rinse the circulation system and to remove any chemical residues.

5. Switch off the equipment and completely drain the cleaning water. Check that all drain valves are closed firmly.

6. Check the hose positioning. Check that the hose has no:

   • Leaks

   • Sharp bends

   • Crimps

   • Air bubbles

Mixing the Tank Solutions

The instructions assume that you are mixing the fresh-tank solutions directly in the processor tank.

WARNING: *Use cold water when you mix solutions to prevent you from unnecessary exposure to fumes that can be released at higher temperatures.*

Handle all chemicals carefully. When you mix solutions, wear goggles or a face shield, a protective rubber apron, and protective gloves made with either neoprene or nitrile rubber.

Clean protective clothing after use to remove any chemical residue that can cause contamination.

For more information about potential health hazards and safe handling of specific Kodak chemicals, see the label and the Material Safety Data Sheet (MSDS) for the chemical. Consult the MSDS for regional contact information.

MSDS copies are available at the Kodak Web site http://www.kodak.com/US/en/corp/hse/prodSearchMSDS.jhtml

IMPORTANT: *To make sure that no chemicals splash on the equipment, fasten the plastic covers from the accessory pack on the equipment.*

Open two KODAK EKTACOLOR Processing Cartridge 75 cartons and remove the four bottles from each carton.

When you remove the cap of a bottle, the label printed on the seal identifies the bottle as either the developer bottle (CD), one of the two bleach-fix bottles (BX-A or BX-B), or the stabilizer bottle (SB).

You need:

- Two bottles of each part to make up the fresh-tank solutions
- A solution measuring device, such as a graduated cylinder that can accurately measure volumes up to 900 mL
- The ability to measure up to 10 L of water

For the developer you need KODAK EKTACOLOR RA Developer Starter. The Kodak catalog numbers are:

Region	CAT No.
United States, Canada, and Latin America (Northern)	102 6681
Europe, Middle East, Africa	527 8957
Latin America (Southern)	632 0238
Greater Asia Region	444 5839, 403 6596
China	660 0315
Japan	660 0647

Stabilizer

1. Add 10.3 L of water to the first tank.

2. Add one-half the contents (approximately 72 mL) of one bottle of stabilizer concentrate (labeled **SB**).

3. Repeat Steps 1 and 2 for each of the three remaining stabilizer tanks.

   The total volume for each tank is 11 L.

Bleach-Fix

You can mix the working bleach-fix tank directly from the two-part concentrates. Use two EKTACOLOR Processing Cartridge 75 units to supply the two bottles of each of the two concentrate solutions.

CAUTION: **Avoid contamination of the developer with bleach-fix.**

1. Add 12.7 L of water to the tank.

2. Add the entire contents of two bottles of bleach-fix concentrate, Part A (labeled **BX-A**).

3. Add the entire contents of two bottles of bleach-fix concentrate, Part B (labeled **BX-B**).

   The total volume in the tank is 18.0 L.

Developer

IMPORTANT: *To obtain good performance, take special care in mixing the developer tank.*

1. Add 15.9 L of water to the tank.

2. Slowly add the entire contents of two bottles of developer concentrate (labeled **CD**).

3. Add 900 mL of EKTACOLOR RA Developer Starter, Catalog No. 102 6681.

   The total volume in the tank is 18.5 L.

Inserting the Chemical Filters

1. Take the chemical filters out of the accessory pack.

2. Rinse the filters in water to remove loose fibers and attach the filters to the holders.

3. Put them in the appropriate tanks corresponding to the colored stickers. You may need to turn the filter rods slightly so that the filters sit correctly.

Installing the Racks and Bringing the Tank Solutions to Temperature

When you fill the tanks with the new mixes, they appear only partially filled. When you reinstall the racks in the tanks, the racks displace more solution volume to fill the tanks.

1. Install each rack by slowly lowering it into the tank; the rack displaces additional volume to fill the tank and partially mix the solution.

2. When you have reinstalled all the racks, verify that all tanks are filled with solution.

3. Restore power to the equipment.

4. Start the recirculation pumps to complete the mixing of the solutions.

5. Let the processor reach operating temperature.

Tank	Temperature °C
Developer	40.0 +/- 0.3
Bleach-Fix	38 +/- 2
Stabilizer	37 +/- 3

Preparing Replenisher
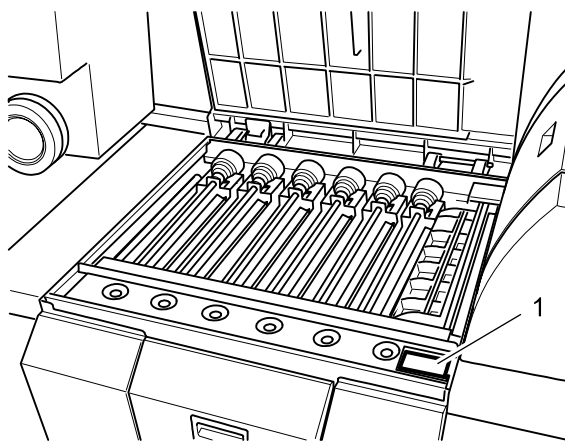
1. Fill 7 L (1.8 gal) of water in the ASTOR tank (1).

2. Fill the water tank until the upper one of the two float sensors is activated or the overflow indicator sticks out of the tank.

3. Prior to the first paper transport, use water to wet the foam rollers of the squeegee unit (2). Otherwise the wet paper could stick to the dry rollers.
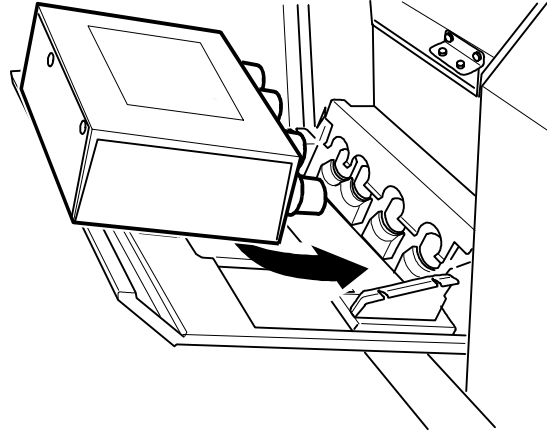
4. Put the EKTACOLOR Processing Cartridge in the docking station with the sticker facing up.

    The preparation of the replenishers starts as soon as the docking station is closed. During this procedure, the door is locked mechanically and the LED on the left side of the docking station illuminates steadily.

IMPORTANT: *To reduce oxidation, a cartridge should always be in the docking station. After the LED is turned off, the cartridge can be removed and replaced by a full one. Alternatively, an empty cartridge can remain in the docking station until you get a message to insert a new cartridge.*

The replenishers are mixed automatically by the integrated electrically driven mixers.

One preparation is sufficient for about 75 m^2 (807 ft²) of color negative paper, equivalent to approximately 1400 8 x 10-in. (20 x 25-cm) prints.

Other Operations to Perform Prior to Production

1. Set the reference values. (See *Paper Processor Settings* in Chapter 4.)

2. Test the chemicals. (See *Testing the Paper Processor* in Chapter 5.)

3. Adjust the equipment to the operators' needs (such as national settings) and to the production requirements (such as configurations and price categories). (See *Settings*, Chapter 4.)

4. Calibrate the equipment. (See *Tests*, Chapter 5.)

Chapter 4 Settings

Contents

From the Order Receipt to the Finished Print

Administrator

Administrator actions	Initiated using the following buttons
Settings for the automatic Startup by the timer: start times, first user, calendar with off-days and company holidays	**Settings** **Machine settings** **Startup**
Configuration settings: Used as a basis for the Print configuration. Definition of paper widths and surfaces, appropriate coding of the paper magazines, definition of cut lengths	**Settings** **Machine settings** **Surface**, **Paper settings**, or **Cut length**
Performing machine settings: Country-specific settings, machine settings, importing layouts for combiprints and index prints, production balance, communication with other machines (remote orders).	**Settings** **Machine settings** **User interface** **Combiprint Layout** **Indexprint Layout** **Printer** (example: MBL repetitions) **Scanner** (example: scratch correction) **Paper Processor** (example: replenishment rates) **Production balance** **Network orders**
Creating an operator with password, language, user levels	**Settings** **Machine settings** **User manager**
Creating sub-configurations	**Settings** **Print configurations** **Paper** **Back print** **Indexprint** **Correction** **Autosave** **Front print** **Combiprint**
Combining sub-configurations to create order configurations: Single, Package, Combiprint	**Settings** **Print configurations** **Order**
If the Pricing + Label Printer option is available, definition of price categories	**Settings** **Pricing settings**
Creating a backup copy of the settings and configurations	**Settings** **Save settings**

Operator

Operator actions	Initiated using the following buttons or actions
Operator logon	**End of work** **Change user** 1. Select a name for the operator. 2. Enter the **Password**. 3. Touch **Login**.
Preparing the machine for the order	1. Mount a suitable mirror box and film mask. 2. Prepare paper magazines (insert paper, code magazine) and mount them
Testing the paper and the machine: Be sure to use MBL (**M**aster **Bal**ance) paper for the first PBL (**P**aper **Bal**ance).	**Test** **Start MBL** **Start PBL**
Order handling: First order Reorder Reorder for single frames or films without DX code – without preview or – with preview and image editing	Use print modes: **Autoprint**, **File print**, or **Slide print** **Reorder** **Manual positioning**
If the Pricing + Label Printer option is available: Printing a price tag	
If the Statistical option is available: Saving and displaying statistics	

Settings

You can only modify settings when the film drive, the printer, and the paper processor are empty:

- No film in the film mask
- No paper in the printer
- No paper in the paper processor

The **Settings** menu is disabled as long as film or paper is advancing through the system.
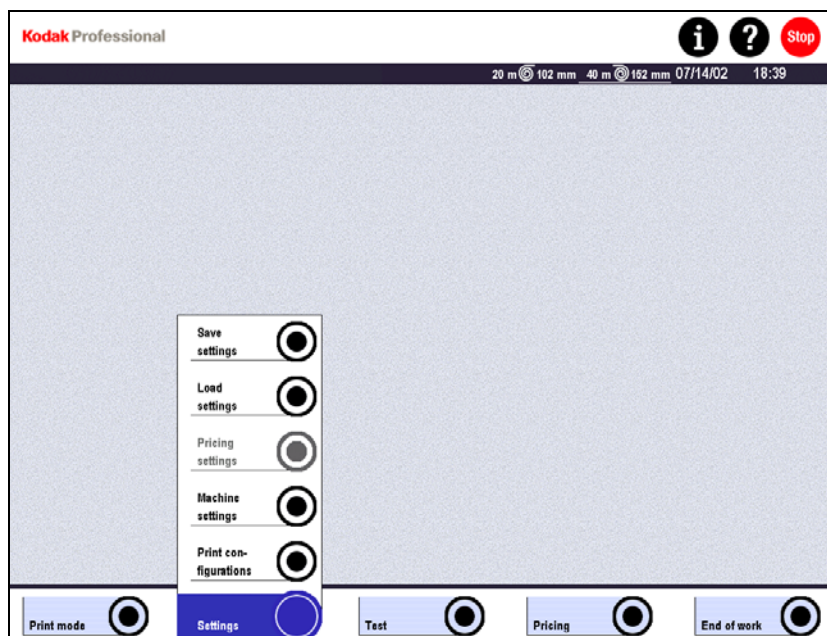
To open the **Setting screen**, touch **Settings** on the menu bar. The following options are available:

- **Print configurations**
  For creating print configurations for production, with all associated sub-configurations.

- **Machine settings**
  For adjusting the equipment to user needs and lab requirements.

- **Pricing settings**
  For entering all prices. (Available only with the Pricing + Label Printer option.)

- **Load settings**
  For reloading saved settings and/or configurations.

- **Save settings**
  For saving all machine settings, print configurations, and pricing settings.

Entering Names

If a name is required (for new configurations, for example), the **Input screen** opens automatically.

Configuration names have a maximum length of 30 characters. Special characters are permitted, except for quotation marks.
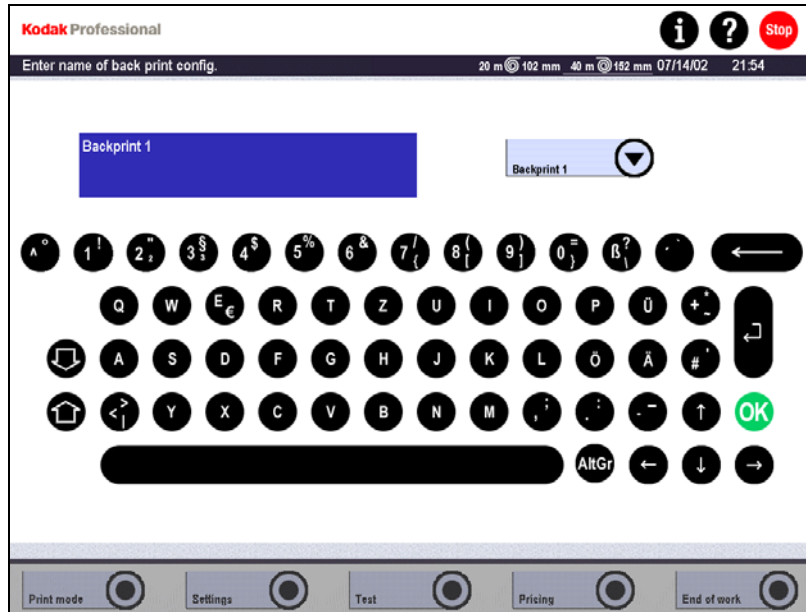
1. Touch the appropriate characters on the keyboard.

    Characters appear in the blue field above the keyboard as you enter them. They also appear in the button next to the blue field. This lets you see immediately how much of the entered text will appear on the button when it is selected from a list or pull-down menu.
2. Touch **OK** to confirm.

Entering Numbers

If a number is required (for the numeric user password, for example) the numeric keypad opens automatically.
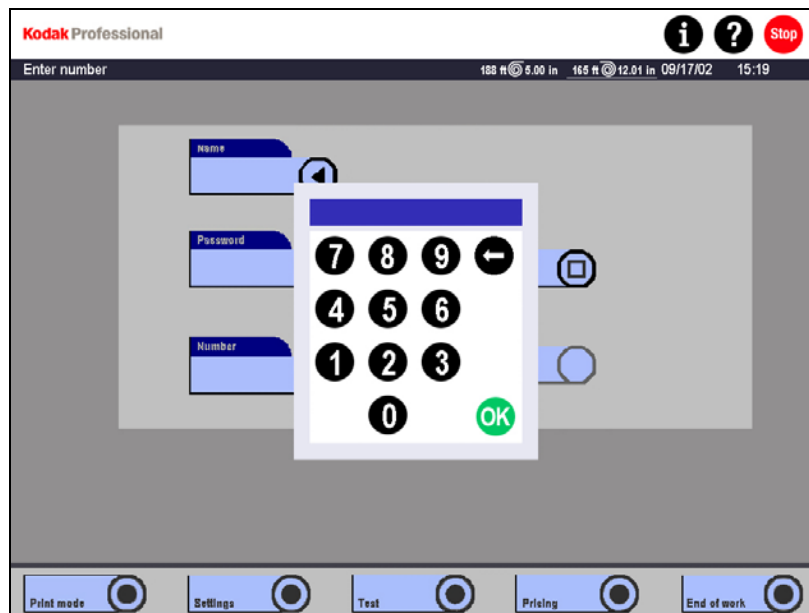
1. Touch the appropriate numbers on the keypad.

   The numbers appear in the blue field above the keypad as you enter them.
2. Touch **OK** to confirm.

Machine Settings

To open, touch:

- **Settings**
- **Machine settings**
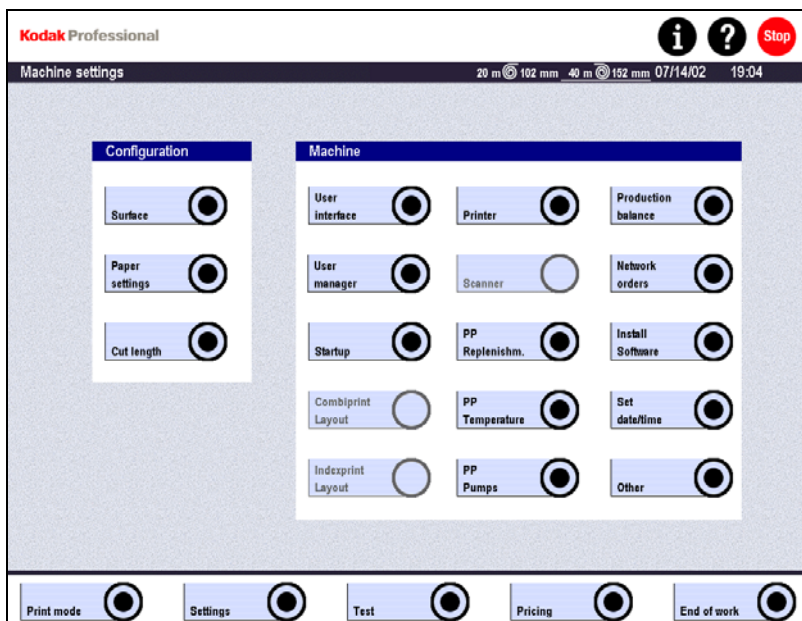
The settings are divided into two sections: **Configuration** and **Machine**. This division has an effect on Saving and Loading. The configuration settings are saved and loaded together with the print configurations.

Configuration:

- **Surface** and **Paper settings**

  Set the switches according to the paper magazine coding for the surfaces (5 and 6) and the paper widths (1–4). (See *Coding the Paper Magazine* on Page 4-13.

- **Cut length**

Machine:

- **User interface** for country-specific settings such as language, keyboard, and measurement system
- **User manager** to create users with name, password, and access rights
- Settings for the automatic **Startup**, such as workdays with start times / first user, calendar (holidays, company holidays)
- **Combiprint Layout**
  Importing of predefined layouts for printing multiple pictures of the same size (passport photos) or different sizes on the same sheet of paper
- **Index print Layout**
  Import of predefined layouts
- Settings for the **Scanner**, **Printer**, and **Paper Processor** (**PP Replenishm.**, **PP Temperature**, and **PP Pumps**)

- **Production balance**
  Color/density corrections, surface and detail contrast, sharpness, saturation, and TFS logic (color, density selector)

- **Network orders (Digital orders)**
  Settings to receive and send remote orders (file print / Autosave) and network orders

- **Install Software**
  Updating the system software and installation of optional software components (such as Pricing)

- **Set date/time**

- **Other**
  Entry of lab name/ID for the back print, settings for the automatic end of order and automatic order number, and settings to prevent excess prints caused by input errors

NOTE: IP Layout Software 4.95 is provided for creating your own layouts for Combiprints and Index prints.

Defining Surfaces

1. Touch:

   - **Settings**
   - **Machine settings**
   - **Surface**
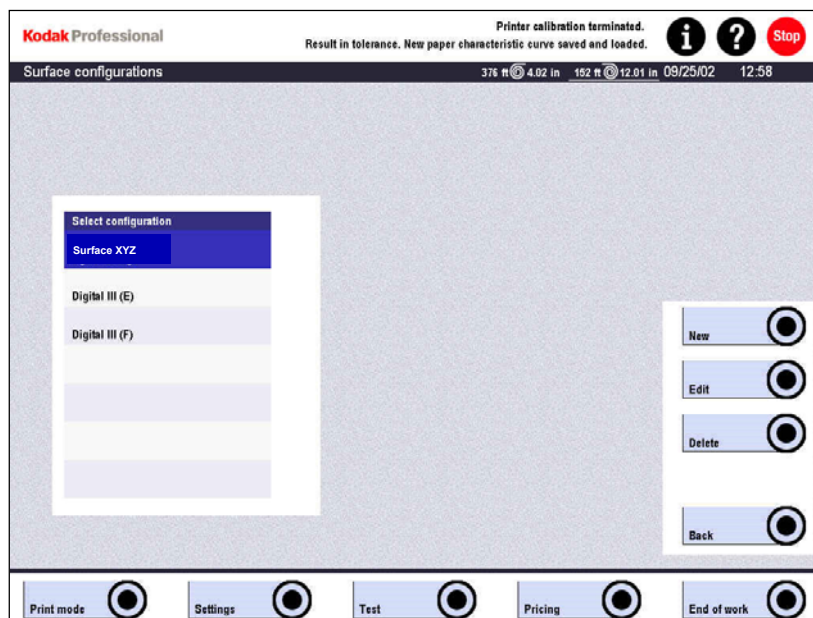
2. Touch **New** or select an existing configuration and touch **Edit**.
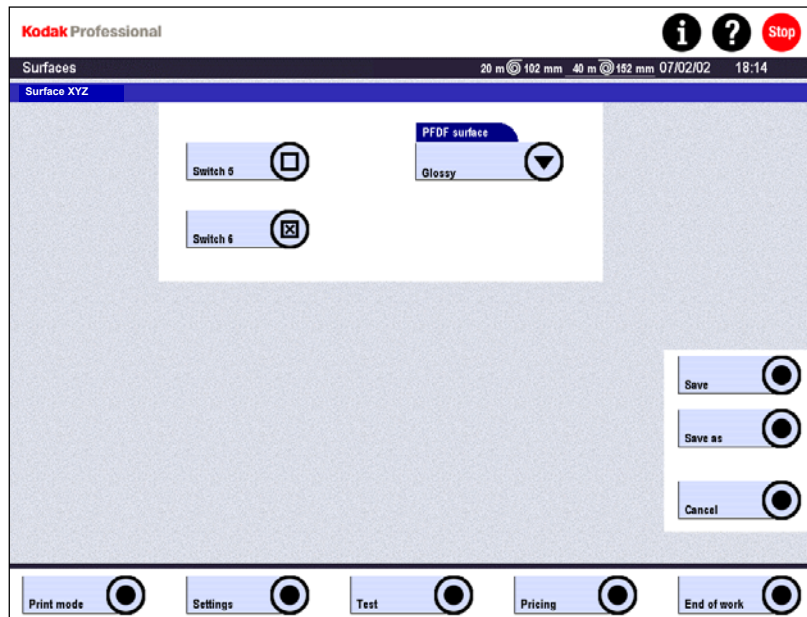
3. Touch **PFDF surface** and select from a list of standard PFDF surfaces such as Matte, Glossy, or Lustre.

4. Touch **Switches 5** and **6** to define the name of the paper surface. (See *Coding the Paper Magazine* on Page 4-13).

5. Touch **Save as** if you are creating a new configuration, and enter a name.

   Touch **Save** to save changes to an existing configuration.

   Touch **Cancel** to return to the previous screen without saving.

Defining Paper Settings

1. Touch:
   - **Settings**
   - **Machine settings**
   - **Paper settings**
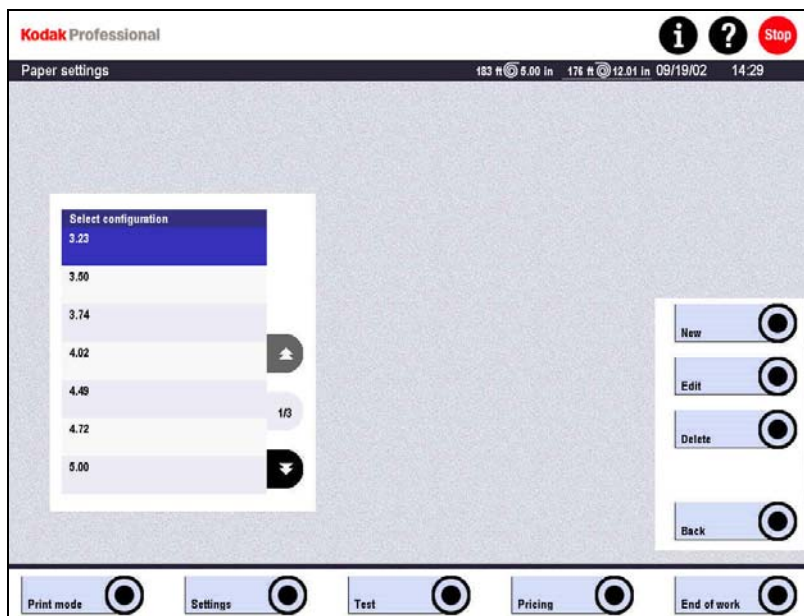
2. Touch **New** or select an existing configuration and touch **Edit**.
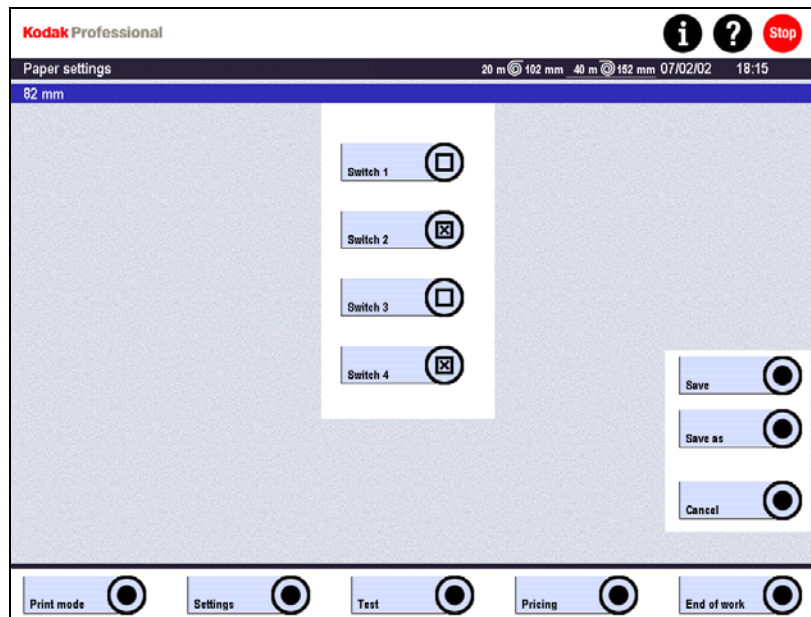
3. Touch **Switches 1** to **4** to define the paper width. (See *Coding the Paper Magazine* on Page 4-13.)

4. Touch **Save as** if you are creating a new configuration, and enter a name.

   Touch **Save** to save changes to an existing configuration.

   Touch **Cancel** to return to the previous screen without saving.

The total number of paper widths usable without modification is 16. Up to four different surfaces can be used in the same way for all widths.

Coding the Paper Magazine

White slide tabs located on the paper magazine let you code the width (1–4) and surface (5 and 6) of the paper in use. Whenever you change paper, set the slide tabs accordingly. The meaning of the coding is described below.

□ Slide tab closed (corresponds to switch setting (⊠) on the SRP 30 screen)

■ Slide tab open (corresponds to switch setting (□) on the SRP 30 screen)

Paper Width		Width Indicators				Surface Indicators	
		1	2	3	4	5	6
3.25 inch	(82 mm)	■	□	■	□		
3.50 inch	(89 mm)	■	□	■	■		
3.75 inch	(95 mm)	□	■	■	■		
4.00 inch	(102 mm)	■	■	■	□		
4.75 inch	(120 mm)	■	■	□	■	GLOSSY	■□
5.00 inch	(127 mm)	■	□	□	■	MATTE	■■
6.00 inch	(152 mm)	■	□	□	□	CUSTOM1	□■
6.50 inch	(165 mm)	□	■	■	□	CUSTOM2	□□
7.00 inch	(178 mm)	□	■	□	■		
8.00 inch	(203 mm)	□	□	■	■		
8.25 inch	(210 mm)	□	■	□	□		
8.50 inch	(216 mm)	□	□	□	□		
10.0 inch	(254 mm)	□	□	□	■		
11.0 inch	(279 mm)	□	□	■	□		
12.0 inch	(305 mm)	■	■	□	□		

NOTE: The table shows the Kodak standard. If required, you can define a different allocation of the switches to paper widths and surfaces. Each switch combination can only be used once. (See *Paper Configurations* on Page 4-51.)

When the magazine is in place, the system automatically recognizes the paper width and the paper surface and offers the corresponding sizes for selection in the print menus.

Defining the Cut Lengths

1. Touch:

    - **Settings**

    - **Machine settings**

    - **Cut length**
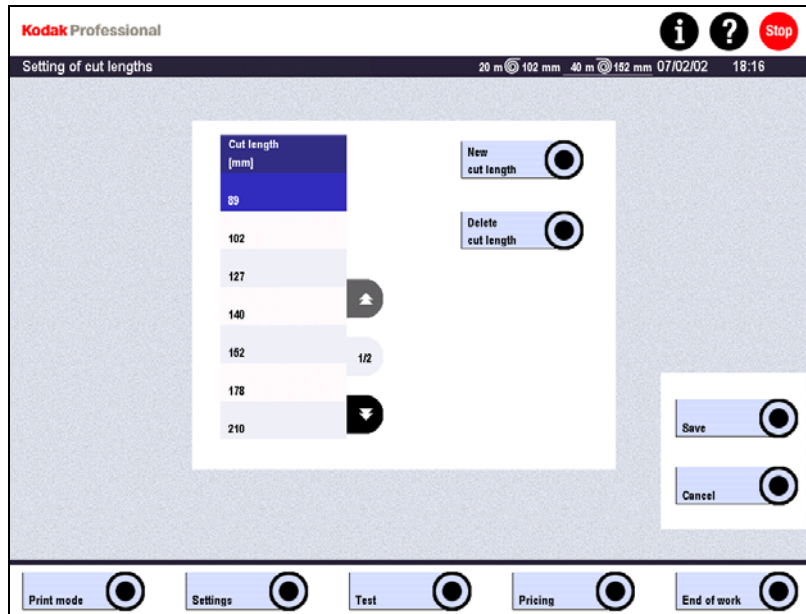
2. Touch **New cut length** or **Delete cut length** to update the list of created cut lengths. The range is 82–305 mm (3.2–12.0 in.).

Paper width	Minimum cut length	Comments
<121 mm (4.75 in.)	121 mm (4.75 in.)	
121–178 mm (4.75–7.00 in.)	82 mm (3.25 in.)	Images are rotated before printing
>178 mm (7.00 in.)	121 mm (4.75 in.)	

3. Touch **Save**.

The cut lengths defined here appear in the selection boxes of the order configurations.

User Interface

1. Touch:

    *   **Settings**
    *   **Machine settings**
    *   **User interface**
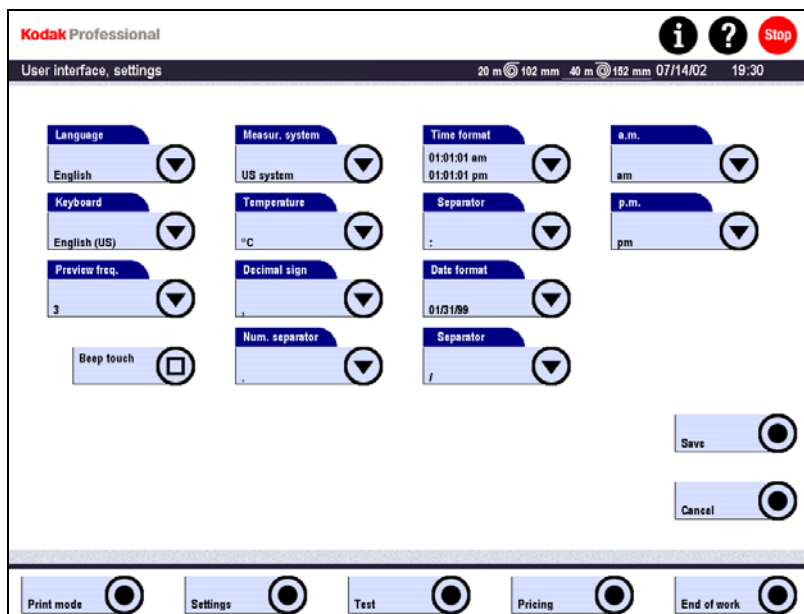
2. Select the data for the user-specific settings:

    *   **Language**
        German, English, French, Italian, Spanish, etc.

    *   **Keyboard** for the input screen on the touch screen

    *   **Preview freq.**
        The frequency with which the Preview images advance in the Autoprint,
        Reorder, and File Print modes. The fastest possible frequency is preset
        (3 seconds).

    *   **Beep Touch** on/off
        Acoustic feedback after a button has been touched

    *   **Measuring system**, **Temperature**, **Decimal sign** and **Separator**,
        Time format and **Date format**
        After language selection, the system presets the national standards
        automatically. Changes are permitted. Date and time appear in the indicated
        format in the timer settings and in the back print.

    *   **a.m. / p.m.**
        If you select a 24-hour format for the time display, the buttons for the entry and
        selection of shortcuts for **morning** and **afternoon** (a.m. / p.m.) are not
        available.

    *   **Save**
        Modifications become effective only after they have been saved.

User Administrator: Defining Users and User Rights

The **User interface** settings are needed for user-specific functions and must be in place before users can logon to the system.

You can define any number of users, but two user types are required:

- **Administrator –** with user rights for all functions, except Service.
- **Service –** with unlimited rights for all functions.

1. Touch:
    - **Settings**
    - **Machine settings**
    - **User manager**
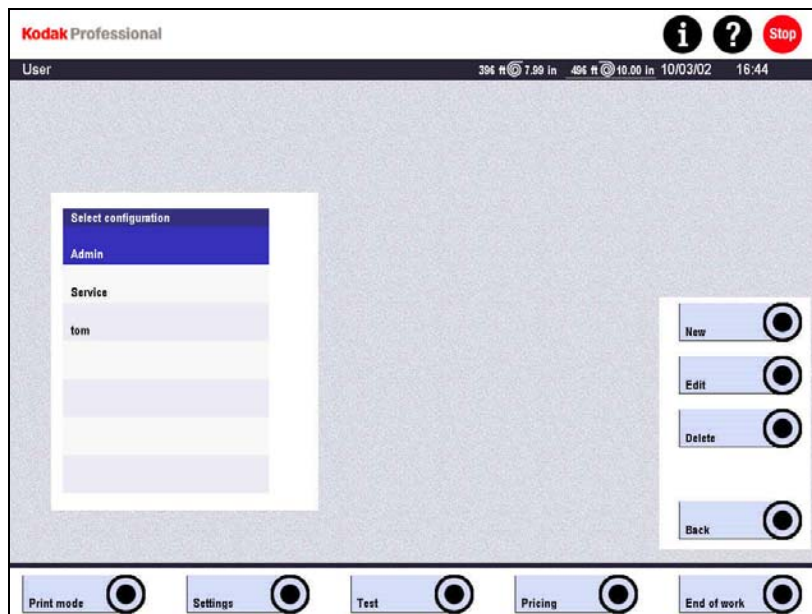
2. Touch **New** or select an existing user and touch **Edit**.

NOTE: Changes to these settings become effective only after the next user login.
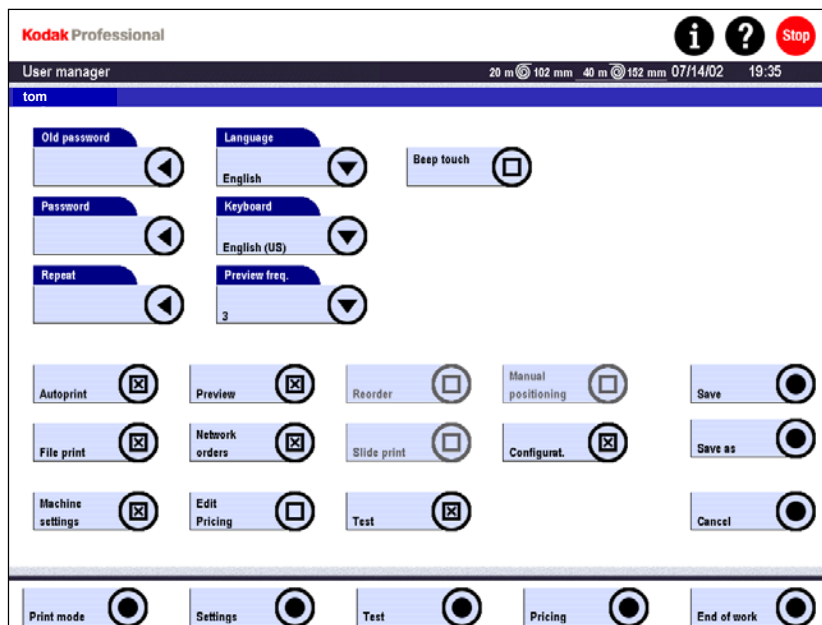
3. Define or change the password. (Passwords are a maximum of four digits.)

   a. For a new user, touch **Password**.

      For an existing user:

      - Touch **Old Password**.
      - Enter the existing password and touch **OK**.
      - Touch **Password**.

   b. Enter the new password and touch **OK**.

   c. Touch **Repeat** and enter the new password again for verification.

4. Enable or disable **Language**, **Keyboard**, **Preview freq.**, and **Beep Touch**. These functions are described in the previous section. You can change the settings for each individual user.

5. Enable or disable the user rights (buttons in the lower half of the screen). For descriptions of the user rights, see *User Profiles* on Page 4-18.

6. Touch **Save as** if you are creating a new user. Enter a user name with a maximum of 20 characters. Special characters („ / \ [ ] : ; | = + * ? < >) are not permitted.

   Touch **Save** to save changes for an existing user.

   Touch **Cancel** to return to the previous screen without saving.

User Profiles

Rights	Button	Description
Print modes	**Autoprint**	First-time (new) orders
	Reorder	Reorders
	File print	Image files of an order (loaded from data media)
	Preview	Autoprint, Reorder, File print with Preview
	Manual positioning	Originals that cannot be handled in Autoprint or Reorder mode: Single frames, strips without space detection
	Network orders	File print (Remote), Autosave (Remote), Network orders from a workstation
Settings	**Configurations**	Create or modify order configurations, including sub-configurations
	Machine settings	Modify Machine settings
Pricing	**Edit Pricing**	Create or edit pricing configurations
Test	**Test**	MBL, PBL, Remote

Defining Times for Startup, Shutdown, and Sleep Mode

1. Touch:
   - **Settings**
   - **Machine settings**
   - **Startup**
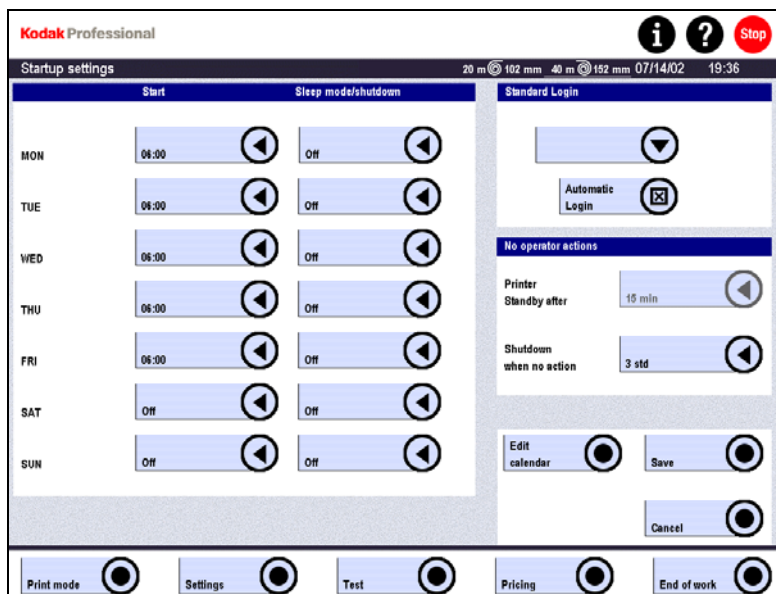
2. Touch the buttons under the **Start** and **Sleep mode/shutdown** headings to define the times for each day. Set to **Off** for off days.
   - For the automatic start times, allow approximately one hour for the system to preheat the solutions and dryer to the correct operating temperature.
   - In sleep mode, most of the system components are shut down, but the main computer remains on for checking statistics. When the main computer is finished, it automatically shuts down at the indicated time.

3. Under the **Standard Login** heading:
   a. Touch the top button and select the user to be logged in at the beginning of work.
   b. Enable **Automatic Login** to let the standard login user have automatic access after system startup, or disable the function to require the user to enter a password.

4. Under the **No operator actions** heading:
   a. Touch **Printer Standby after** and set the number of minutes for the system to wait between user actions before it automatically puts the printer in standby.
   b. Touch **Shutdown when no action** and set the number of hours/minutes after startup for the system to wait for a user action before it automatically shuts down. (The preset is 3 hours.)

5. Touch **Edit calendar** and follow the steps in *Calendar: Defining Off Days* on Page 4-20.

6. Touch **Save** to save the settings or **Cancel** to return to the previous screen without saving.

Calendar: Defining Off Days

1. Touch:
   - **Settings**
   - **Machine settings**
   - **Startup**
   - **Edit calendar**
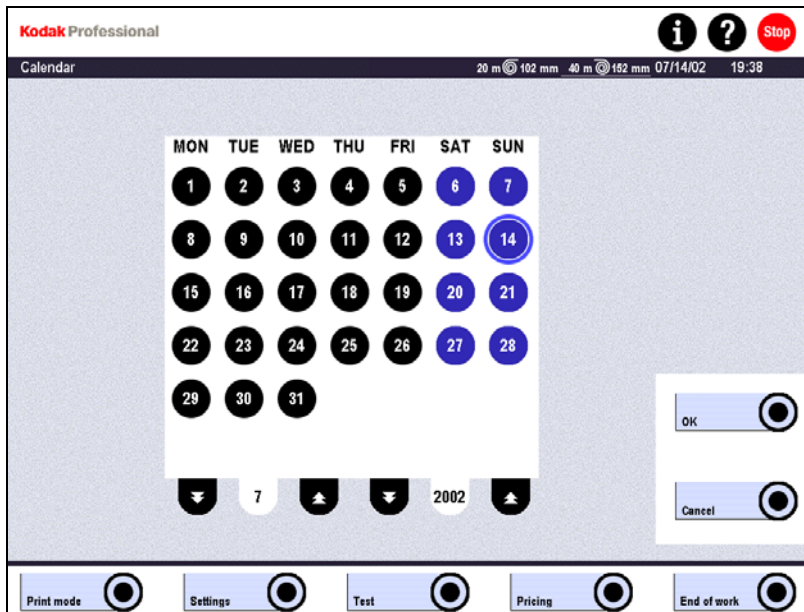
2. Touch the arrow keys to select the month and year.
3. Touch the buttons to set work days and off days.
   - Black buttons: Workdays
   - Blue buttons: Off days

NOTE: The current day has a ring around the number.

4. Touch **OK** to save and return to the **Startup settings** screen. Or touch **Cancel** to return without saving.

Installing the Software

1. Touch:
   - **Settings**
   - **Machine settings**
   - **Install Software**
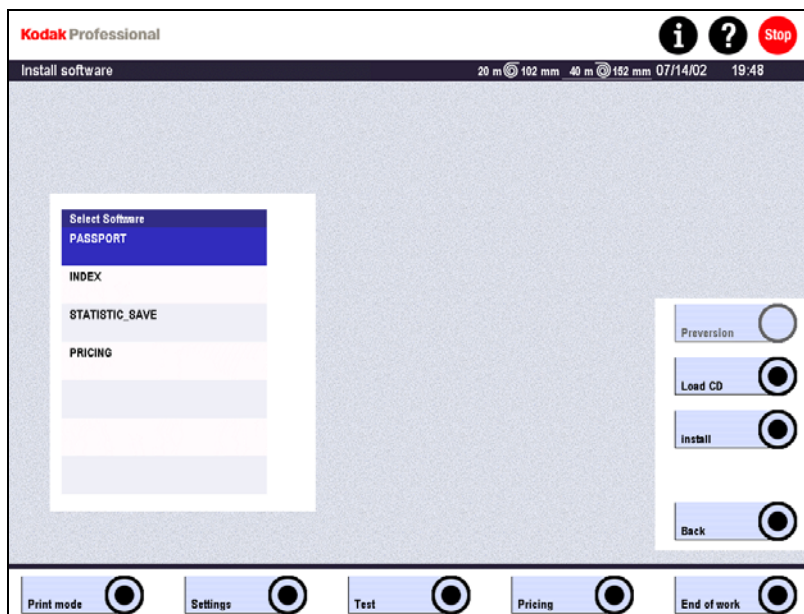
2. Touch **Load CD** or select the software component in the list that you wish to enable. (See *Enabling the Software* on Page 4-22.)

3. Touch **Install**.

   The screen displays a safety check message asking if the machine settings were saved on an external data medium.

   a. If you answer **Yes**, the input screen opens.
      If you answer **No**, the system stops the operation. Save the machine settings before proceeding.

   b. If you are loading a CD, or if you selected a software component in the list, enter the alphanumeric enable code that you received from Kodak.

   After you install or enable the software, the system performs an automatic restart. After the restart, the buttons pertaining to the new software functions are accessible.

   If the equipment does not function correctly after the new start, touch **Preversion** (previous version) to restore the software to the configuration before the update.

Enabling the Software

Some optional programs are available in the main software and are enabled when purchased:

- Pricing
- Saving statistics
- Index print layouts
- Combiprint layouts to print Combiprints and passport photos

Follow these steps to enable the optional programs:

1. Touch:

   - **i**
   - **Version Info**

2. Find the option program's license ID in the bottom left area of the screen.
3. Contact Kodak and order the option. Indicate the license ID. Kodak will provide you with an alphanumeric enable code.
4. Install the software as described in *Installing the Software* on Page 4-21.

Importing a Combiprint Layout

In addition to the standard Combiprint layouts available on the printer, you can create customized layouts using the layout software provided by Kodak. A license key is required to import these customized layouts. (See *Enabling the Software* on Page 4-22.)

To import Combiprint layouts:

1. Touch:

    -   **Settings**
    -   **Machine settings**
    -   **Combiprint Layout**
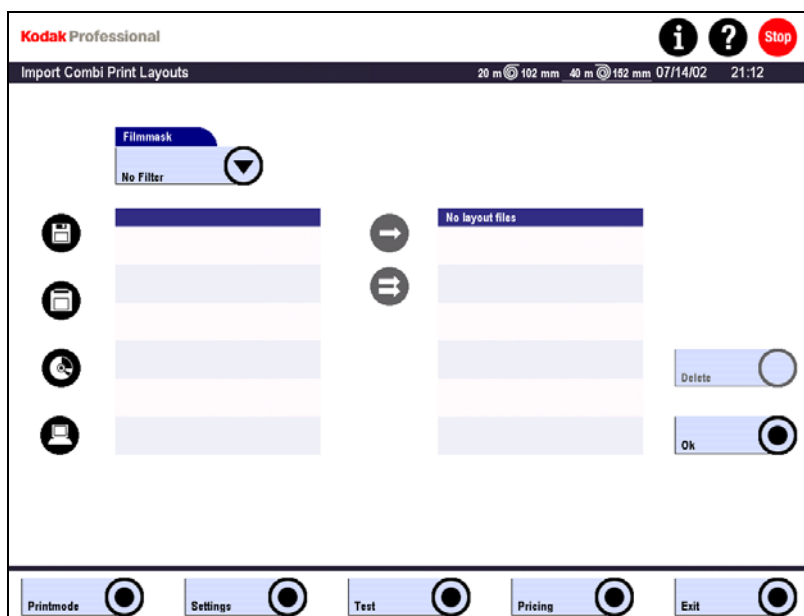
2. Touch **Film mask** and make a selection.

    The file extension of the layout patterns is **.pas**.

    Only the layout files appropriate for the selected film mask appear in the list. You can see all of the available layout files by selecting **No filter**.

3. Select a **Drive** (and in the next screen, a **Folder**, if needed) in which to store the layout files.

4. Touch the arrow buttons to transfer single files (single arrow) or all files (double arrow) to the selection list.

5. Touch **OK** to import the selected layout files.

To remove an unwanted layout file, select the file and touch **Delete**.

Importing an Index Print Layout

In addition to the standard Index print layouts available on the printer, you can create customized layouts using the layout software provided by Kodak. A license key is required to import these customized layouts. (See *Enabling the Software* on Page 4-22.)

To import Index print layouts:

1. Touch:
   - **Settings**
   - **Machine settings**
   - **Index print layout**

2. Touch **Film mask** and make a selection.

   The file extensions of the layout patterns are based on the film mask (for example, **.135** or **.240**).

   Only the layout files appropriate for the selected film mask appear in the list. You can see all of the available layout files by selecting **No filter**.

3. Select a **Drive** (and in the next screen, a **Folder**, if needed) in which to store the layout files.

4. Touch the arrow buttons to transfer single files (single arrow) or all files (double arrow) to the selection list.

5. Touch **OK** to import the selected layout files.

To remove an unwanted layout file, select the file and touch **Delete**.

Printer Settings

1. Touch:
   - **Settings**
   - **Machine settings**
   - **Printer**
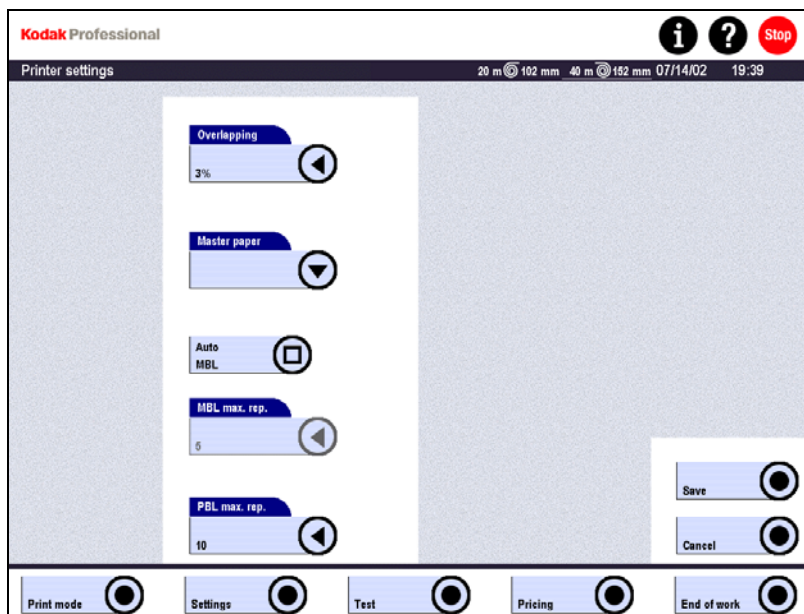
2. Touch the following buttons to define the printer settings:
   - **Overlapping**
     Indicate the percentage by which the digitized image will overlap the exposed paper. The range is 0 to 10%.
   - **Master Paper**
     Define the paper used most frequently as the Master paper. The MBL (**M**aster **Ba**lance) is performed on this paper.
   - **Auto-MBL**
     Enable or disable.
   - **MBL max. rep.**
     When **Auto-MBL** is enabled, enter how often the system should automatically repeat the MBL test if the result is not within tolerance. The range is 1 to 10.
   - **PBL max. rep.**
     Enter how often the system should automatically repeat the PBL (**P**aper **Ba**lance) test if the result is not within tolerance. The range is 1 to 10.

3. Touch **Save** to save the settings or **Cancel** to return to the previous screen without saving.

Scanner Settings

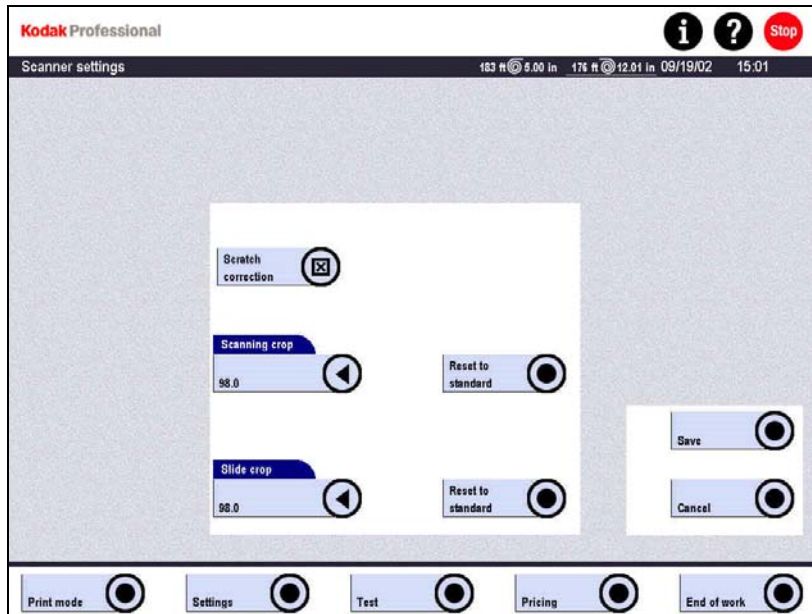1. Touch:

   - **Settings**
   - **Machine settings**
   - **Scanner**

2. Touch the following buttons to define the scanner settings:

   - **Scratch correction**
     Enable or disable. If scratch correction is enabled, dense areas of a frame that includes underexposed patches may show color drifts.

     Scratches that are caused, for example, by dust in the camera or in the film drive can be corrected. Deep scratches and holes cannot be corrected.

     Depending on the extent of the scratches on the film, the printing procedure may take longer than normal.

   - **Scanning crop** and **Slide crop**
     Define the part of the scanned frame or slide on the CCD that has to be printed. If you increase the value, the prints may get black borders. The preset value is 98%.

   - **Reset to standard** (one for **Scanning crop** and one for **Slide crop**)
     Touch to reset the value of the associated function to 98%.

3. Touch **Save** to save the settings or **Cancel** to return to the previous screen without saving.

Paper Processor Settings

Setting the Replenishment Rates

NOTE: You cannot modify the individual replenishment rates. The rates for DEV, BX and STB can only be increased or reduced together at the same ratio. If one of the replenishment rates is changed, the values of the other two solutions are changed in proportion.

IMPORTANT: *If possible, do not change the preset replenishment rate values. If required, use **Reset to default** for all modified values.*

1. Touch:

   - **Settings**
   - **Machine settings**
   - **PP Replenishment**
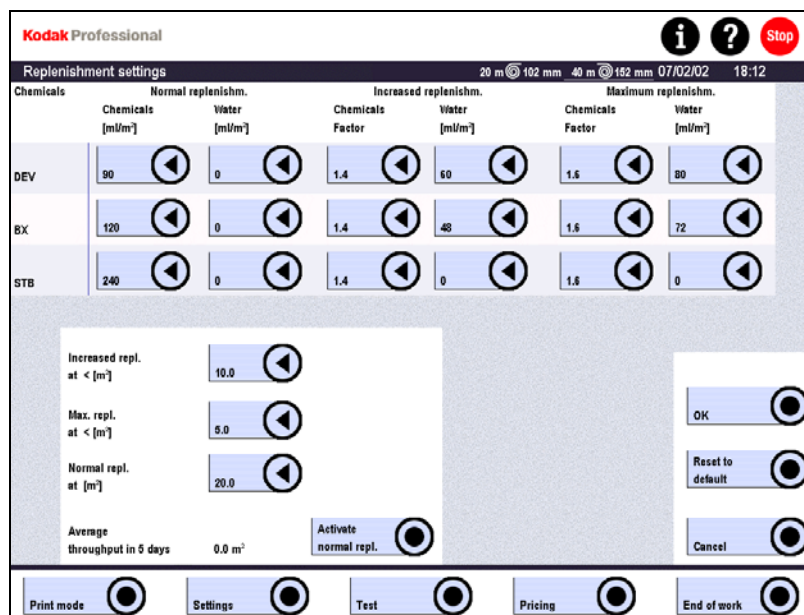
The **Normal**, **Increased**, and **Maximum** replenishment rates for chemicals and water are indicated at the top of the screen. The system calculates the daily average throughput of the last five days of production and sets an appropriate **Normal** replenishment rate.

More chemicals and water are replenished to maintain production stability when below average throughput occurs. If the system detects a throughput of less than 10 m^2, it activates the **Increased** replenishment rate. If the system detects a throughput of less than 5 m^2, it activates the **Maximum** replenishment rate.

The **Normal** replenishment rates are increased by the factors or volumes displayed on the **Increased** and **Maximum** replenishment buttons.

2. When the SRP 30 Laser Printer is first put into operation, or if it has not been used for a number of days, touch **Activate normal repl.**

   After 5 operating days, the replenishment proceeds according to the system-calculated throughput.

3. Touch **OK** or **Cancel**.

Default Replenishment Rates

Solution	Time in sec.	Replenishment rates
Developer	33	60 ml/m^2
Bleach-fixing solution	33	100 ml/m^2
Stabilizer	69	60 ml/m^2 + 140 ml/m^2 water

**Calibrating the Temperature Sensors and Water Pumps**

WARNING: *Calibrating the temperature sensors and water pumps presents a potential safety hazard because it requires the wet section cover to be open with power applied. Therefore, the following functions should only be performed by a service technician:*

- *Settings / Machine settings / PP Temperature*
- *Settings / Machine settings / PP Pumps*

Production Balance – TFS Logic

1. Touch:
   - **Settings**
   - **Machine settings**
   - **Production Balance**
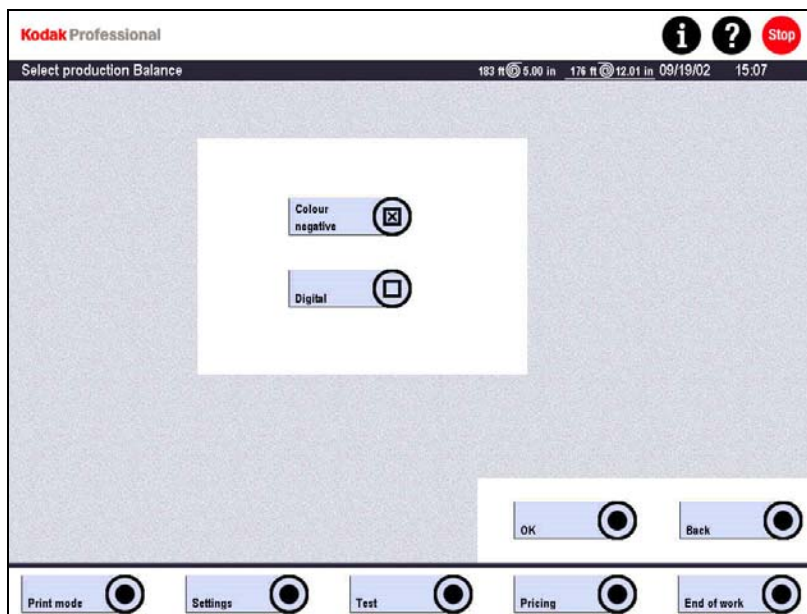
2. Enable the **Color negative** production balance function.

IMPORTANT: *Modifying the parameters for general machine settings (such as corrections, grain reduction, and activation of the TFS logic) will shift the printer result in one direction, but will also have an effect on the result in the other direction. For this reason, only experienced operators should modify parameters.*

- *These settings only affect color negative handling.*
- *Modifications are only effective after a new start.*

The settings of the Production balance (surface and detail contrast, sharpness and saturation, etc.) do not show in the back print because the Production balance specifies the basic setting (0 value).

Correction values entered later (by way of correction configurations or for image improvement) are added to this 0 value and can appear in the back print. For color and density corrections, the weighing depends on the entered correction strength. (See *Impact*, below.)
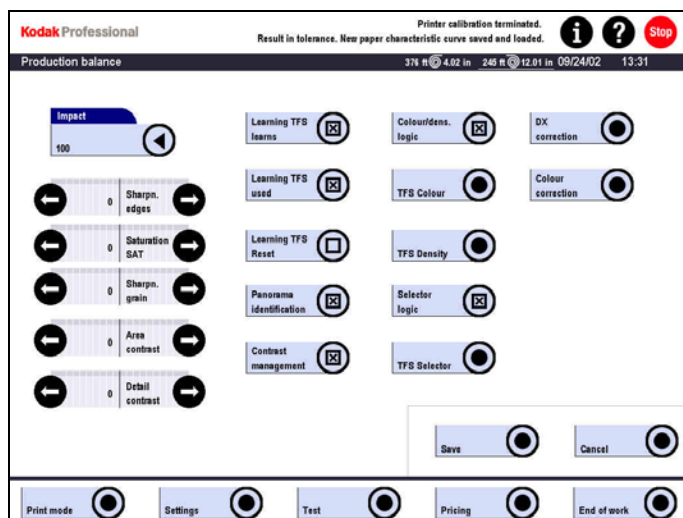
Impact

The **Impact** button is used for modifying the correction strength:

- Preset: 100%
- Range: 10-200%

The preset value of 100% should result in a correction density step of about 0.01D and a color step of about 0.03D–0.04D on the paper (depending on the paper

gradation). The parameter changes are linear. A value of 50 produces half the effect, while a value of 200 doubles the effect.

The basic setting to modify the colors and density for the entire production is effective for all color and density corrections (for example, in all screens with regulators for yellow, magenta, cyan, and density). These corrections do not appear in the back print.

IMPORTANT: *Only change the correction effect (**Impact** values) once to adjust the fine grading or the extent of the correction to personal requirements.*

Seasonal changes (color dominants green and white) should be compensated only by the corrections themselves, not by the correction effect.

Shifting all three colors by the same extent and in the same direction has no effect.

Sharpen Edges, Saturation, and Sharpen Grain

- Use the **Sharpn. edges** regulator to sharpen fine structures such as hair, fur, and trees (shifting towards +) or to apply a soft-focus to portraits (shifting towards -).

   The impression of sharpness depends on the print size and the paper surface. For this reason, you should create a special correction configuration for each print size and surface (for example, sharpness reduction for portrait exposures).

   This function cannot improve blurred exposures.

- Use the **Saturation** regulator to change the color saturation for color prints.

   A slight increase in the color saturation may be an advantage for some prints, such as pictures with many colored areas. For faces, however, an increase would exaggerate the saturation. For a nominal mixed production, a value of 0 is best.

- Use the **Sharpn. grain** regulator to print from high-speed films (such as 800 ASA film).

   This function has a similar effect to **Sharpn. edges,** but on smaller structures (<1 mm) such as on hair in portraits. The grain disappears, but highlights are eliminated as well.

IMPORTANT: *Use **Sharpn. grain** only with values < 0.*
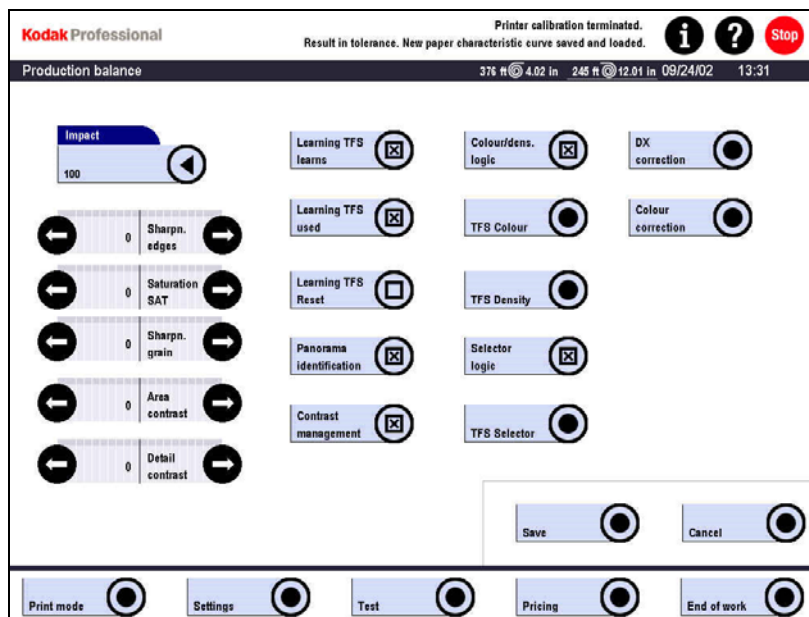
Contrast Management: Area Contrast, Detail Contrast

The regulators for the surface and detail contrast are only accessible after you enable the **Contrast Management** function.

Shifting the **Area contrast** (ACT) regulator has the effect that large areas with little detail in the original get more or less contrast (light surfaces get darker, shadows get lighter; the equivalent of digital masking).

- If the surface contrast is too high, the dark areas of the prints get coarse-grained.
- Surface contrast is not effective for file prints.

The **Detail contrast** (DCT) regulator acts like the area contrast, but is effective for medium-sized structures (print sizes 10x15 to about 1 cm).

Panorama Identification

TFS recognizes panorama shots. You must enable the **Panorama identification** function to print panorama sizes.

Learning TFS Learns and Learning TFS Used
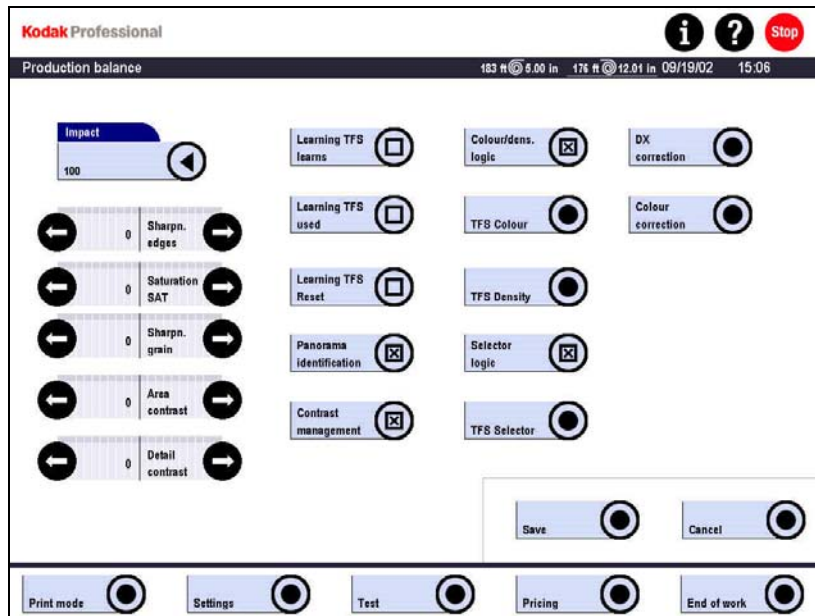
TFS stands for Total Film Scanning. When you enable the **Learning TFS learns** and **Learning TFS used** functions, the system seeks to ensure a uniform production by compensating color dominants and emulsion fluctuations.

During the learning phase (at least 22 different scans of the same film type), the system uses standard values. The film type-specific values resulting from the prescan are only effective afterwards. The learning phase continues for all film types.

The learning TFS is based on the DX code. Because the fluctuations resulting from film processing differences are stronger than the differences among film types, the best results are obtained with films that have been processed, if possible, in an identical or similar way.

Learning TFS Reset

The values found for all films are reset. Enable the **Learning TFS Reset** function only if the production deteriorates. Then the learning process begins again.

IMPORTANT: *Use different films of the same type for the learning phase. Do not use the same film 22 times. Otherwise, the statistics will be invalid.*

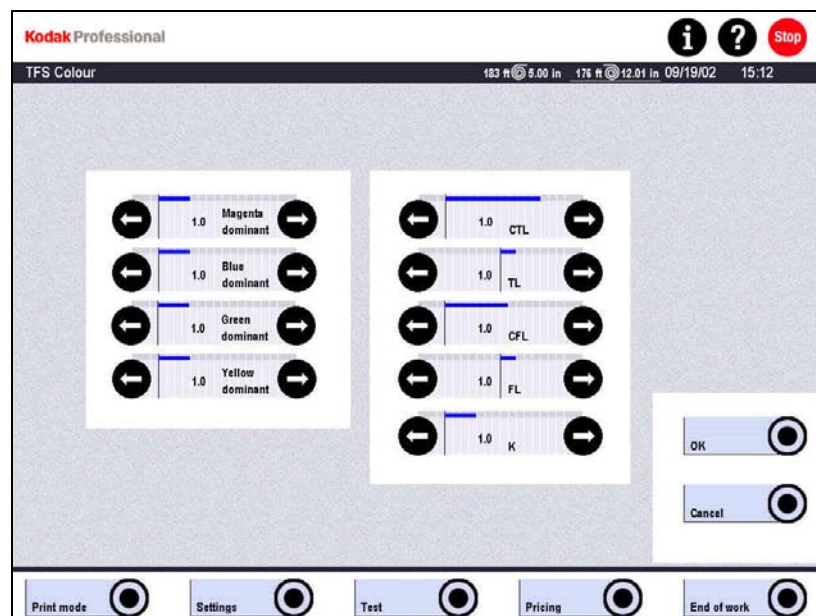### Color/Density Logic
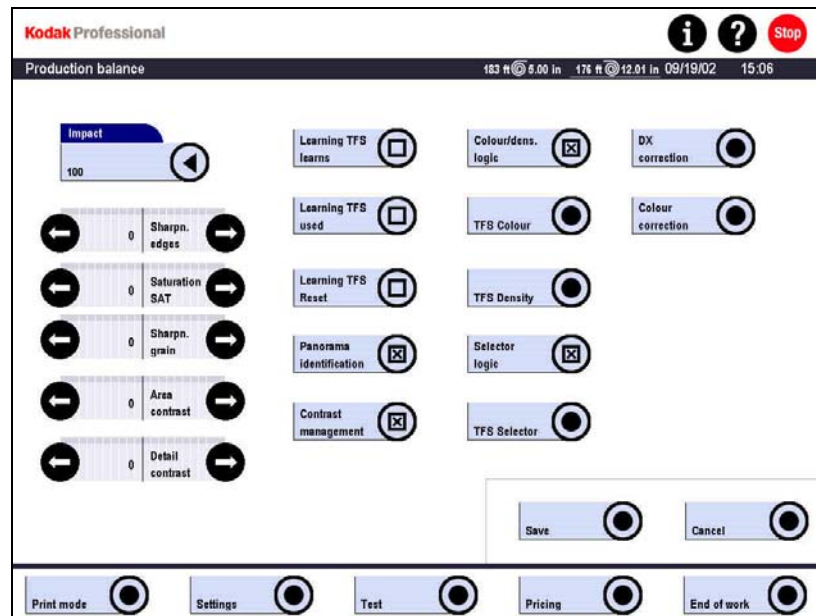
Enabling the **Color/Density logic** function lets you have access to the **TFS Color** and **TFS Density** buttons.

NOTE: Certain parts of the logic are effective even if you have not changed the regulators.

TFS Color

Color Dominant Parameters

The color dominant parameters (magenta, blue, green, and yellow) let you influence the effect of the color under correction.

The measuring system recognizes frames showing a color dominant because the percentage of the dominant measuring points exceeds certain thresholds (upper dominant limits).

Such ranges of measuring points are not taken into consideration for the calculation of the exposure data. This ensures that frames showing a color dominant are printed without a color cast.

Standard setting: 1.0
Step width: 0.1
Setting range: 0.0 to +4.0

	Advantages	Disadvantages
Reducing the standard values	Color dominants are recognized better. Frames with a dominant color are printed neutral with more reliability.	Less uniform colors on prints of one and the same order. Less favorable color balance for subjects taken under special lighting conditions, such as sunsets, shots in the shade with a blue sky, and tungsten light shots.
Increasing the standard values	Better color balance for subjects taken under special lighting conditions. More uniform colors on the prints of one and the same order.	Color dominants are not as well detected. Prints from frames with predominant colors may show complementary color casts.

NOTE: The effect of these parameters (if unequal to 1.0) may be very weak, if not invisible, for unknown films. After the learning phase has been concluded for these films (if "Standard TFS curves" exist), the effect of these dominant parameters becomes normal.

Parameters for Tungsten and Fluorescent Light Detection
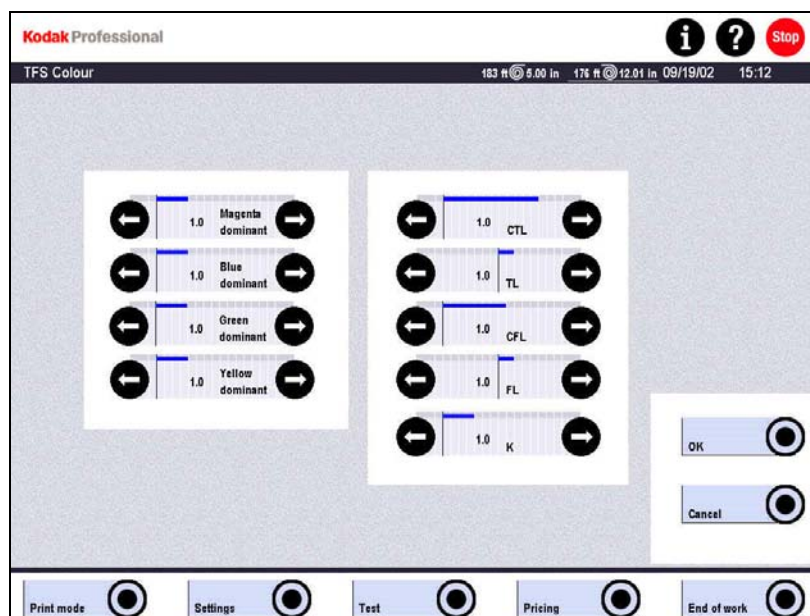
The parameter TL (tungsten light) is used to define the threshold value for the artificial light detection. CTL is used to correct the colors of those frames whose colors are above the threshold value. The strong yellow-reddish color cast is neutralized and the prints take on a character resembling daylight.

Artificial light shots are subjects taken in a warm light (incandescent lamp, candle light).

Standard setting: 1.0
Step width: 0.1

Parameter	Function	Setting range
CTL	Degree of correction for incandescent light	0.0 to +1.3
TL	Correction range for incandescent light	-4.0 to +4.0
CFL	Degree of correction for fluorescent light	0.0 to +2.0
FL	Correction range for fluorescent light	-4.0 to +4.0

|	Advantages	Disadvantages
Reducing the standard values	Daylight subjects that correspond to artificial light shots from a measurement standpoint are recognized less frequently as artificial light shots.	Not all artificial light shots are detected. The prints get a strong yellow-reddish color cast.
Increasing the standard values	More frames are recognized as artificial light shots.	It may happen from time to time that daylight shots with yellow, green or red color portions are mistaken for artificial light shots and are printed with a complementary color cast.

K Parameter for Cross Curve Compensation
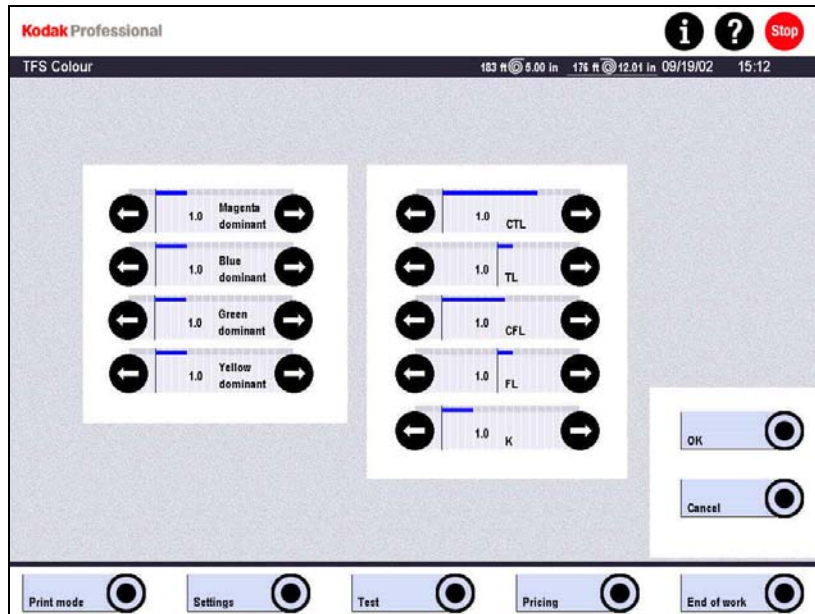
The K parameter lets you control the degree of the cross curve compensation. The cross curve compensation shifts the neutral area of the subject so that the colors appear less "harsh."

The correction is found for each individual frame. The resulting degree of correction depends on the following parameters:

- Setting of the K parameter
- Cross curve tolerance of the film
- Contrast and the density of the frame
- Type of subject

The preset cross curve compensation has no effect on frames without a cross curve effect or on artificial light shots.

Modifying the degree of the cross curve compensation:

The degree of the color correction acts in proportion to the modification of the K parameter value. If, for example, the value is increased from 1.0 to 1.5, the cross curve compensation is 50% stronger.

Example: A light gray house with a dark slate roof.

Cross curve behavior:
The colors range from magenta highlights to green shadows. The facade of the house shows a magenta color cast while the roof is reproduced in a greenish tone.

Cross curve compensation:
The correction eliminates the color cast of the facade—the important part of the picture. But the green color cast of the roof becomes stronger in proportion and appears less "harsh."

Although the colors themselves cannot be modified, the general impression of the picture is improved by shifting the neutral point to the parts of the subject that are important in the picture.

Parameter	Function	Setting range
K	Strength of the cross curve correction	0.0 to +4.0

TFS Density
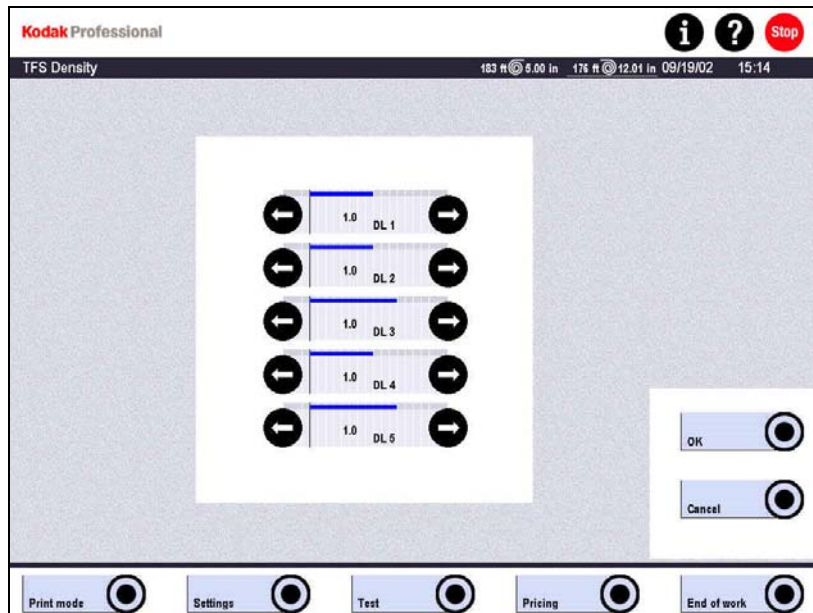
Every parameter (Density 1 to Density 5) is assigned to a certain subject category for which you can define selective density corrections.

Standard setting: 1.0
Step width: 0.1

| Parameter	Function	Setting range
DL 1	Flash shots (red eyes and light subjects in front of a dark background)	0.0–2.0
DL 2	Contrast backlight, snow or beach shots, landscapes with large parts of a bright sky	0.0–2.0
DL 3	Snow shots of a poor contrast, gray water surface with an overcast sky, misty visibility, etc.	0.0–1.4
DL 4	Persons with white clothes on a green meadow, view through trees, flowers with a green background, etc.	0.0–2.0
DL 5	Subjects with a high percentage of blue	0.0–1.4

Small values produce lighter prints, while higher values produce darker prints in the group of subjects.

The basic setting for all selector parameters is 1.0 and should only be modified by an experienced operator.

Every modification of the standard values results not only in an improvement in one group of subjects, but also deterioration in other groups of subjects.

Selector Logic and TFS Selector

The **TFS Selector** button is accessible after you enable the **Selector logic** function on the **Production balance** screen.
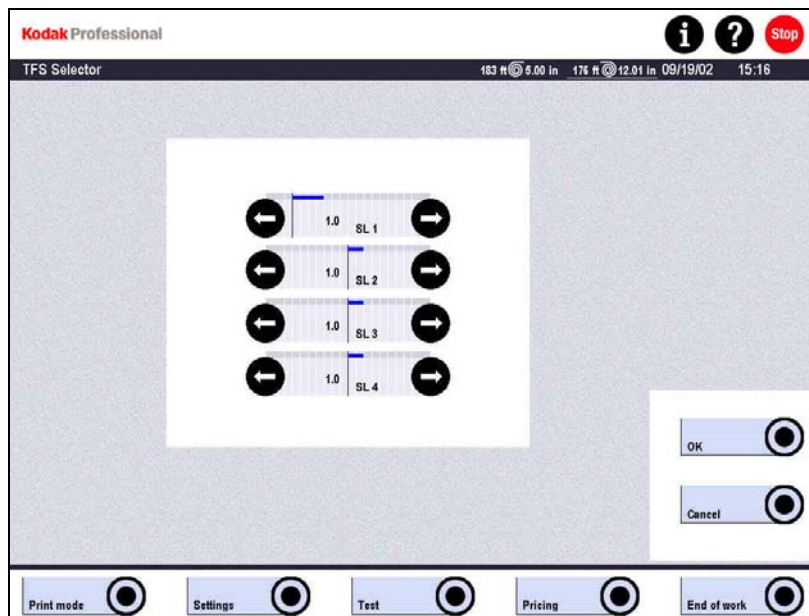
NOTE: Certain parts of the logic are effective even if the regulators have not been changed.

The selector logic recognizes films that can be classified according to certain exposure failure categories.

Standard setting: 1.0
Step width (resolution): 0.1

Parameter	Selected	Setting range	Description
Selector 1	Underexposed frames	0.0 to +4.0	Towards 0.0, more underexposed frames are printed Towards +4.0, fewer underexposed frames are printed
Selector 2	Overexposed frames	-4.0 to +4.0	Towards -4.0, more overexposed frames are printed Towards +4.0, fewer overexposed frames are printed
Selector 3	Blurred or partly blackened frames (scattered light at the beginning of the film)	-4.0 to +4.0	Towards -4.0, fewer frames are selected Towards +4.0, more frames are selected
Selector 4	Label or splice detection (if a very dark area is detected, the frame is skipped)	-4.0 to +4.0	Towards -4.0, fewer dark areas are detected Towards +4.0, more dark areas are detected

Color Correction

The **Color correction** button lets you enter correction values for neutral exposures, underexposures, and overexposures. You should make these corrections based on observations made over several days of production.
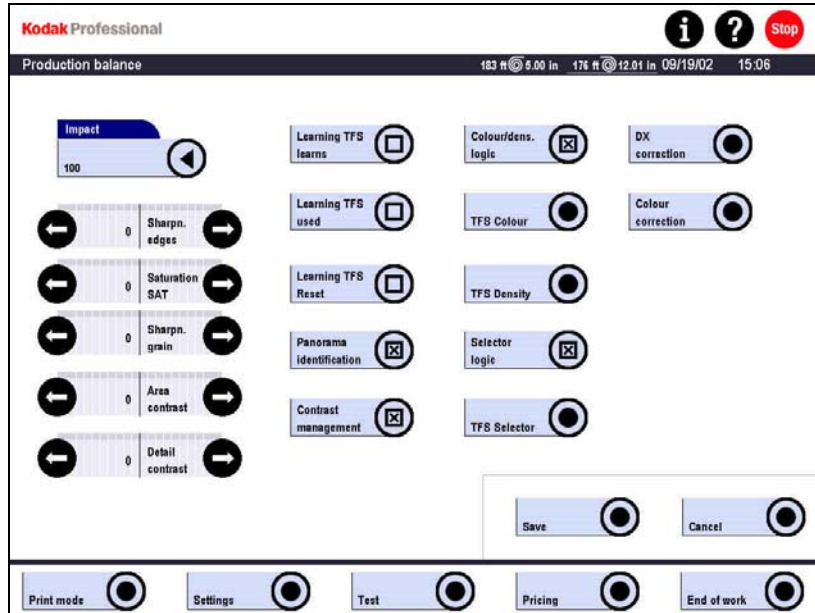

1. Touch **Color correction**.
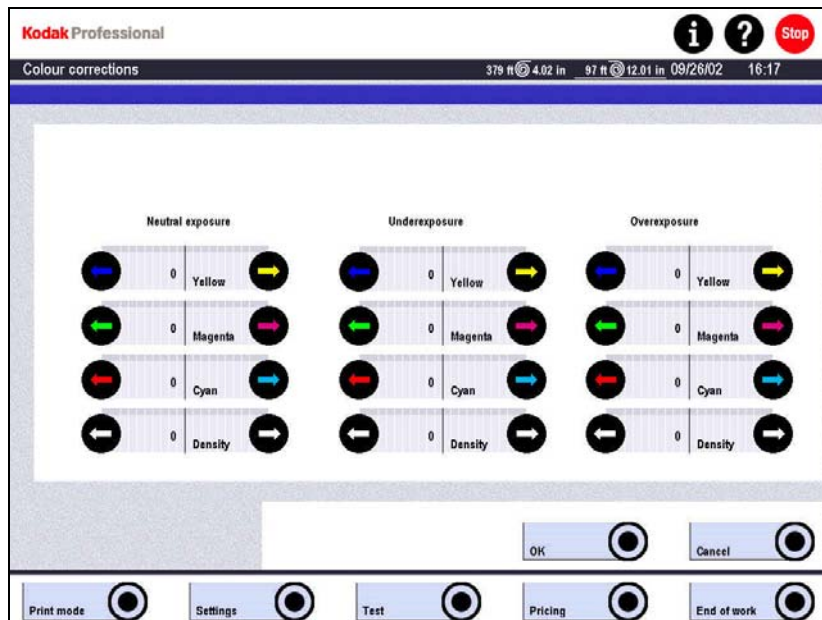
2. Touch the arrows to make the desired corrections.
3. Touch **OK** to save the corrections, or **Cancel** to return to the previous screen without saving.

DX Correction

DX correction configurations let you enter and save individual corrections if certain film types do not print satisfactorily despite TFS, or if the results do not correspond to the usual preferences for a particular country.
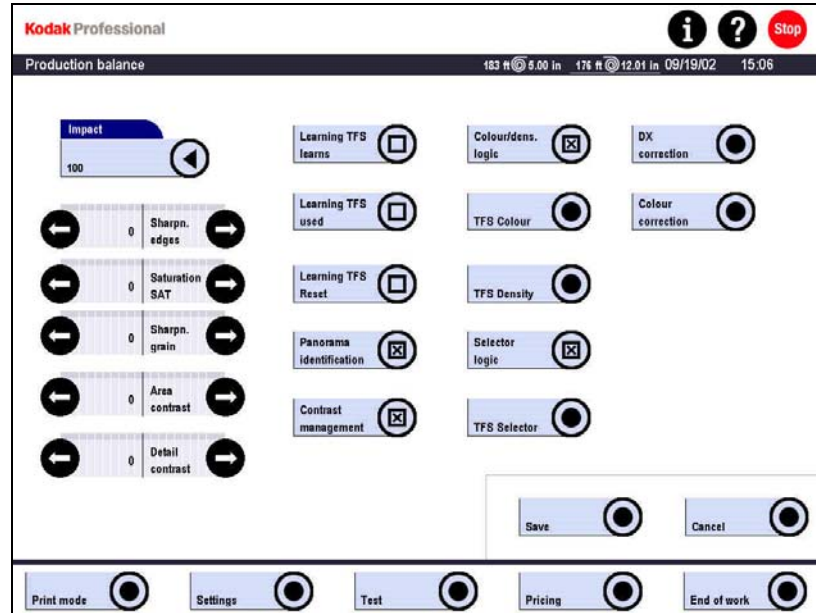
1. Touch **DX correction**.

2. Touch **New** or select an existing configuration and touch **Edit**.

3. Touch the **DX code** button and enter the code in the following format: xxx-xxx. Touch **OK**.

NOTE: To find the DX code, create a back print configuration with the DX code parameter enabled. Then make a print and read the DX code from the back print. See *Back Print Configurations* on Page 4-53.

4. Use the regulator arrows to set correction values for neutral exposures overexposures, and underexposures.

5. Touch **Save as** if you are creating a new configuration, and enter a name.

    Touch **Save** to save changes to an existing configuration.

    Touch **Cancel** to return to the previous screen without saving.

The name of the DX configuration appears in the configuration list.

NOTE: If the DX code is recognized when a film is inserted, the appropriate corrections are applied to the exposure.

Production Balance – Digital

1. Touch:
   - **Settings**
   - **Machine settings**
   - **Production Balance**
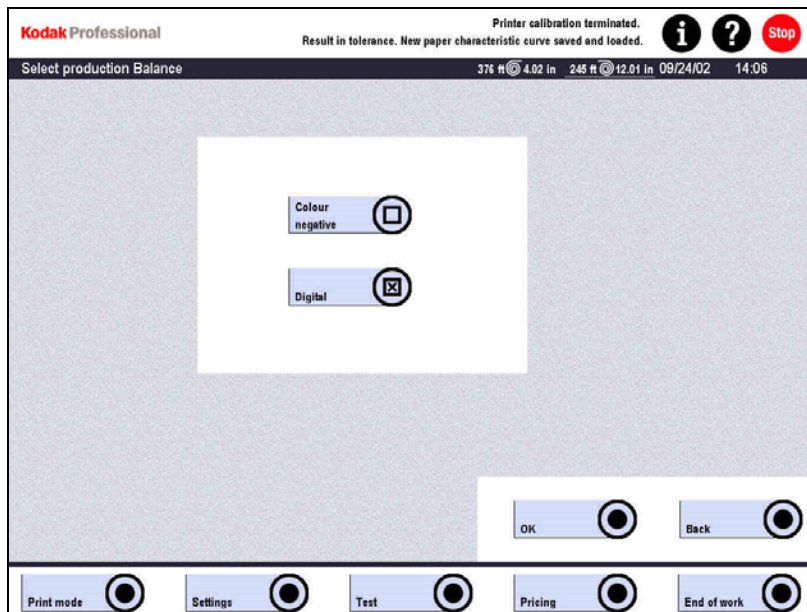
2. Enable the **Digital** production balance function.

IMPORTANT: *Changes in the parameters will shift the printed results in one direction, but will also have an effect on the result in the other direction. For this reason, only experienced operators should modify parameters.*

   - *The settings influence all orders.*
   - *Modifications are only effective after a new start.*

The settings of the Production balance (surface and detail contrast, sharpness and saturation, etc.) do not show in the back print because the Production balance specifies the basic setting (0 value).

Correction values entered later (by way of correction configurations or for image improvement) are added to this 0 value and can appear in the back print. For color and density corrections, the weighing depends on the entered correction strength. (See *Impact* on Page 4-29.)
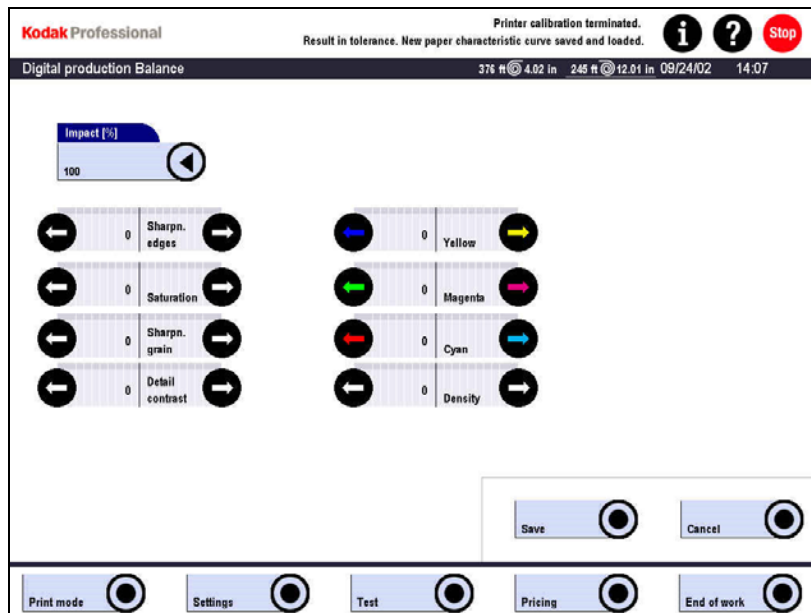
3. Touch the appropriate buttons to make any necessary corrections.

   • **Impact** – See Page 4-29 for a description.

   • **Sharpn. edges**, **Saturation**, and **Sharpn. grain** – See Page 4-30 for descriptions.

   • **Detail contrast** – For adjusting contrast in areas with little detail in the original. Add contrast to make light surfaces darker. Reduce contrast to make dark surfaces (shadows) lighter. This function is the equivalent of digital masking.

   • **Yellow**, **Magenta**, **Cyan**, and **Density** – For making color and density corrections. The value range is –9 to +9. The effect of the correction input depends on the setup of the **Impact** parameter.

4. Touch **Save** to save the corrections or **Cancel** to return without saving.

Digital Order Settings

1. Touch:
   - **Settings**
   - **Machine settings**
   - **Network orders**
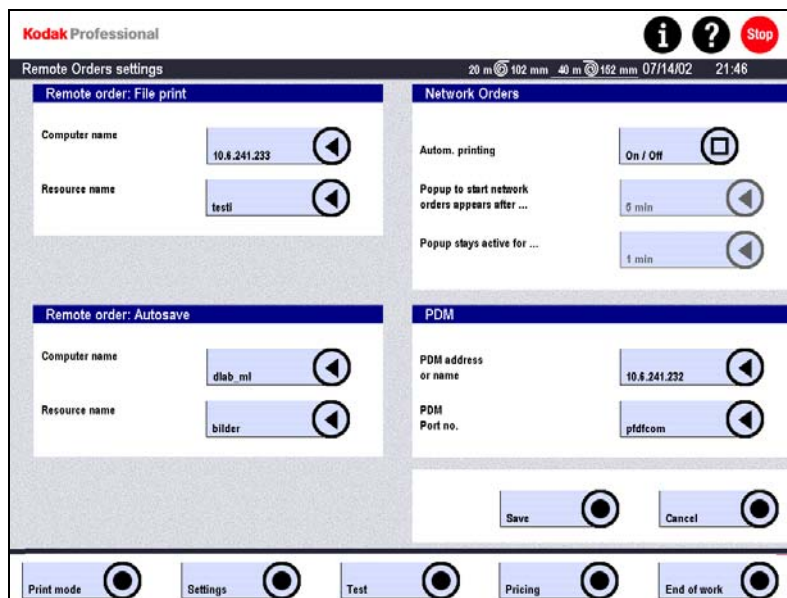
2. Enter the required information in the **Remote Orders settings** screen.

   - **Remote order: File print**: Defines an external location within the network where the SRP 30 Laser Printer stores and accesses image files for the File Print mode.

     - **Computer name**: Enter the computer name or the IP address of a workstation in the network.
     - **Resource name**: The folder must be set up as a shared folder, and the shared name should be different from the folder's local name. Password protection must not be activated. Enter the shared name as the **Resource name**.

   - **Remote order: Autosave**: Defines an external location within the network where the SRP 30 Laser Printer copies and stores image files if the **Autosave** function is enabled.

     - **Computer name**: See *Remote order: File print* above.
     - **Resource name**: See *Remote order: File print* above.

   - **Network orders**: Set **Autom. printing** to **Off**.

   NOTE: When the printer receives network orders from a remote workstation, it prints them automatically regardless of the **Autom. printing** setting. However, if **Autom. printing** is set to **On**, throughput decreases significantly.

- **PDM**: Defines the computer (server) on which the d-Bridge software is installed (required for network orders):

  – **PDM address or name**: Enter a name or IP address.

  – **PDM Port no.**: Use **pfdfcom**, if the corresponding input in the SERVICES file exists.

NOTE: For **Remote order: File print** or **Autosave**:
Access to the indicated drive or directory of the external computer must be possible without restrictions (no password protection).

Explanation:
PFDF (**P**hoto**f**inishing **D**ata **F**ormat) is a standardized format for order data to be used in networks.

d-Bridge is a software program to manage the order files. The software saves digital orders (images and PFDF information) until they are called by a receiving station (for example, the SRP 30 Laser Printer).

In network connections with several input devices, install the d-Bridge software on a computer that is only responsible for this task (prerequisites: 32-Bit WINDOWS-based computer running WINDOWS 2000, at least 700 MHz, at least 128 MB RAM, at least 20 GByte hard disk).

Other Settings

1. Touch:
   - **Settings**
   - **Machine settings**
   - **Other**
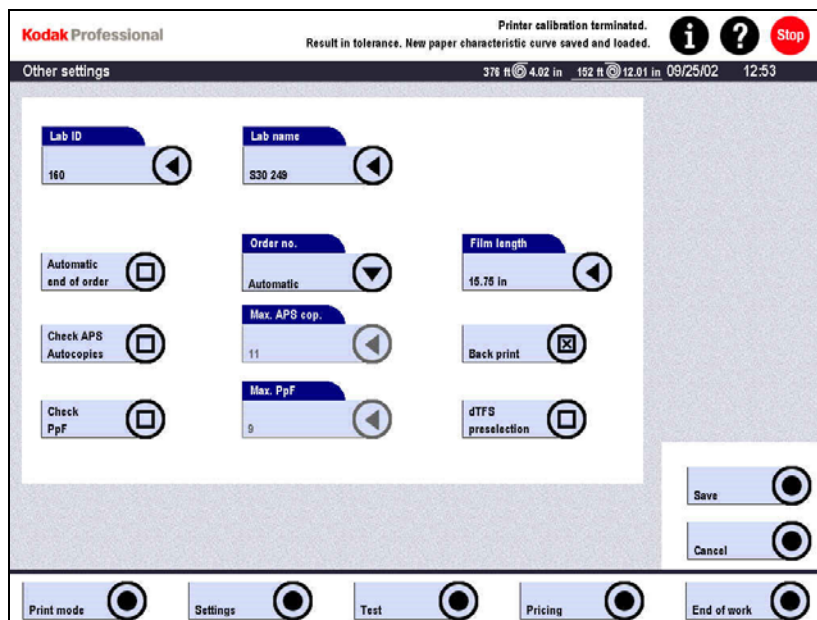
2. Touch the appropriate buttons and enter the following information required for the production.

   - **Lab ID** and **Lab name**
     Seven characters maximum, for inclusion on the back print.

   - **Automatic end of order** and **Film length**
     For the automatic end of order, enter the film strip length (the preset is 400 mm).

   - **Check APS Autocopies** and **Check PpF**
     Enable or disable these functions.

   - **Max. APS Copies** and **Max. PpF** (PpF = Prints per frame)
     If **Check APS Autocopies** or **Check PpF** is enabled, enter a value for the maximum number. If this value is exceeded during printing, the system checks to see that no excessive prints are produced resulting from input errors of the APS camera or the SRP 30 Laser Printer.

   - **Order No.**
     Set to either **Automatic** or **Manual** assignment of the order number. You cannot change order numbers that the system automatically assigns.

- **Back print**
  Enable this parameter to select a back print for the **File print** mode. If this parameter is disabled, you cannot select a back print for the order.
  The back print in the **Network order** print mode is always controlled by the order data created at an external workstation, independent of the status of the **Back print** parameter in this menu.
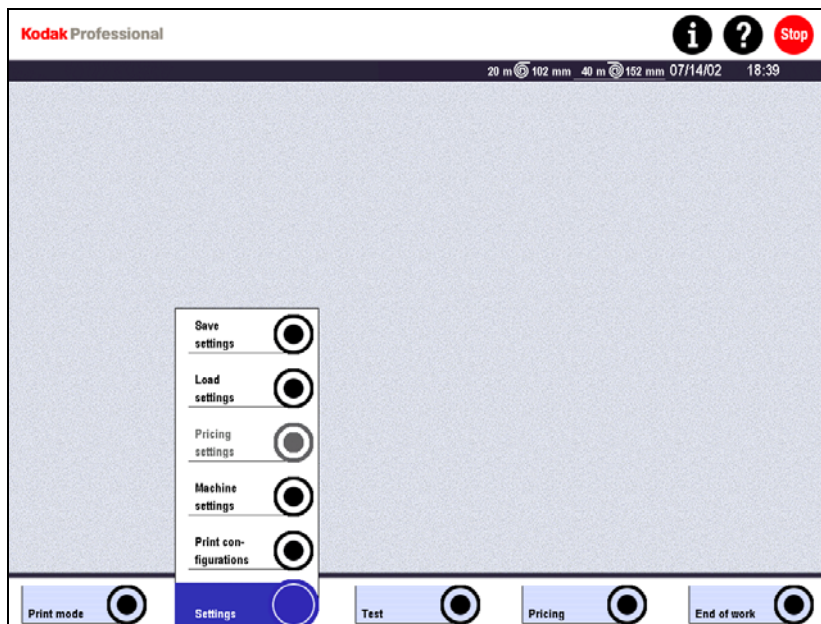
- **dTFS Preselection**
  Enable this parameter to preset dTFS in the **File print** mode. If the parameter is enabled, dTFS is available for selection in the order menu. Otherwise, it is not available.

3. Touch **Save** or **Cancel**.

Print Configurations

Touch:

- **Settings**
- **Print configurations**
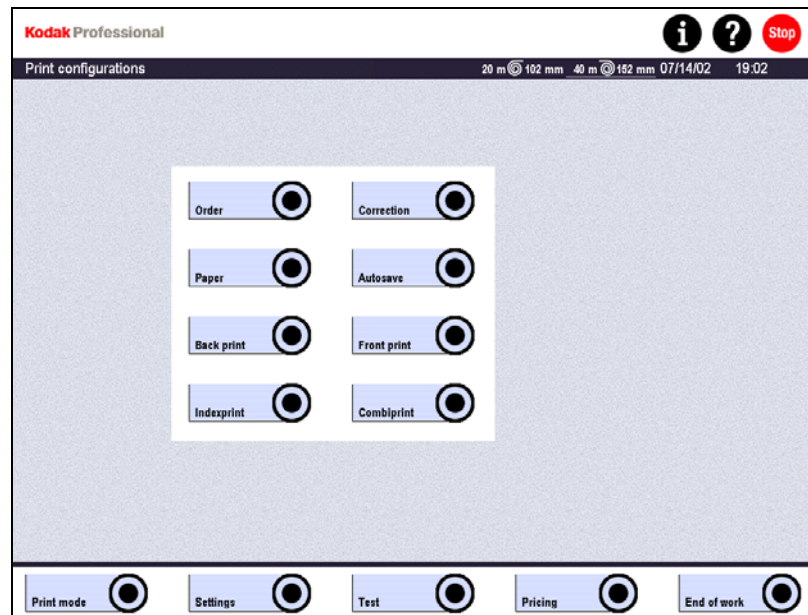
All settings that are needed to produce the desired print size (for example, 9x13) of a film size in use (for example, 135 full frame) are saved in the Print configurations.

For this reason, the following configurations are defined in the indicated order:

1 **Paper**

2 **Back print**

3 **Correction**

4 **Autosave**

5 **Front print**

6 **Index print**

7 **Combiprint**

8 **Order** (Single, Package, Passport Photo, Reproduction)

NOTE: Order configurations are combined on the basis of the other seven print configuration types. One or more of these "sub-configurations" must be created before you can create an order configuration.

You can use a sub-configuration in any number of order configurations.

The procedures for creating print configurations are explained in the following sections.

Creating, Editing, and Deleting Configurations

The configuration lists appearing on the print configuration screens contain all of the configurations that have been created for the related tasks.

NOTE: The screen below is a result of touching the **Order** button shown on the previous page. This screen is used as an example for all print configurations.

Creating a New Configuration
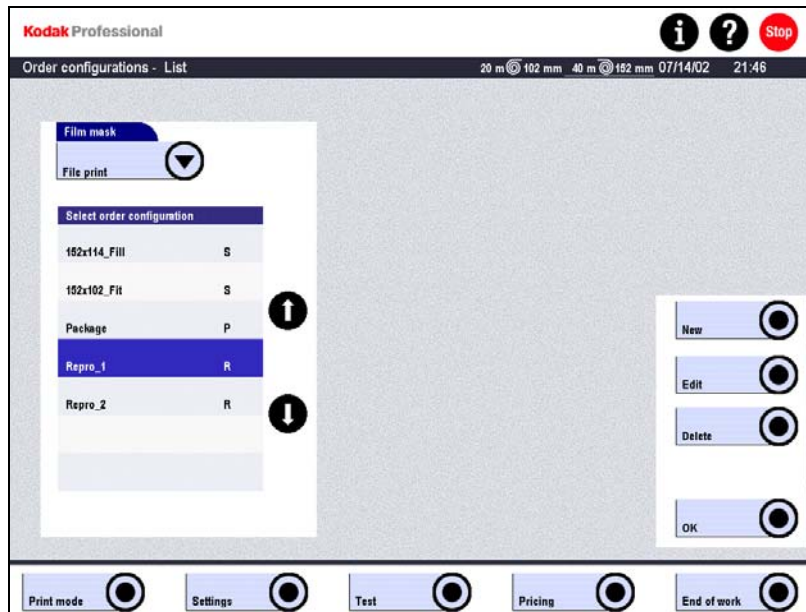
1. If the configuration depends on the film mask, touch **Film mask** and make a selection.
2. Touch **New**.
   A screen opens displaying the fields that contain the existing preset values.
3. Enter the appropriate settings for the new configuration.
4. Touch **Save as** and enter a meaningful name in the input screen.
   - Maximum of 30 characters
   - Permissible characters: - . : , ; + ! ? = ( ) _ / & % $ and blanks

Creating a New Configuration Based on an Existing One

1. Touch a similar configuration in the list. (If necessary, use the arrow buttons to scroll up or down the list.)
2. Touch **Edit**. In the next screen, enter the settings that differ from the original configuration.
3. Touch **Save as** and enter a new name in the input screen.
   - Maximum of 30 characters
   - Permissible characters: - . : , ; + ! ? = ( ) _ / & % $ and blank

Modifying a Configuration

1. Touch the name of the configuration you wish to modify.
2. Touch **Edit** and modify the settings in the next screen.
3. Touch **Save**.
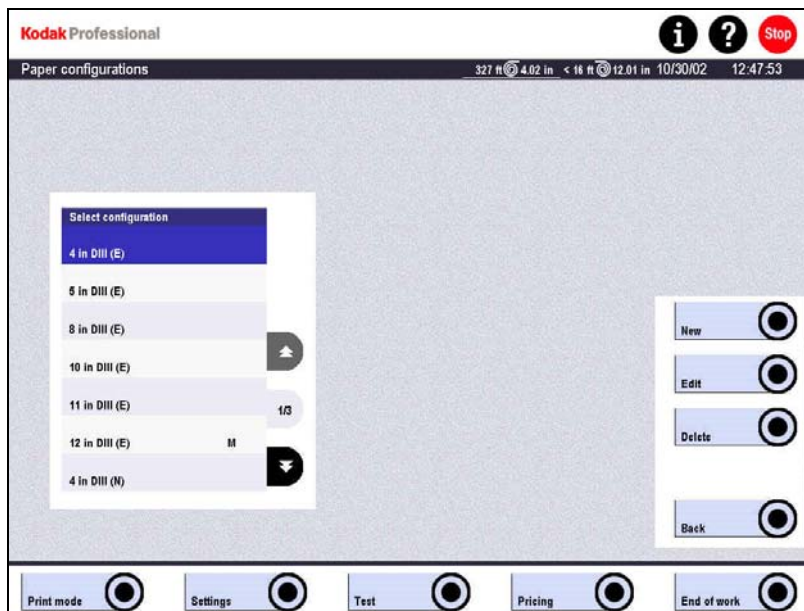
Deleting a Configuration

1. Touch the name in the configuration list and touch **Delete**.
2. If the configuration is used in a main configuration, you do not have to delete the main configuration. Instead, select another configuration to replace the deleted one.
   - Sub-configuration used in the order configuration
   - Order configuration Single used in the order configuration Package

Exiting the Screen

To return to the **Print configurations** screen, touch **Back** or **OK** (depending on the configuration).

Paper Configurations

1. Touch:
   - **Settings**
   - **Print configurations**
   - **Paper**

2. Touch **New** or select an existing configuration and touch **Edit**.
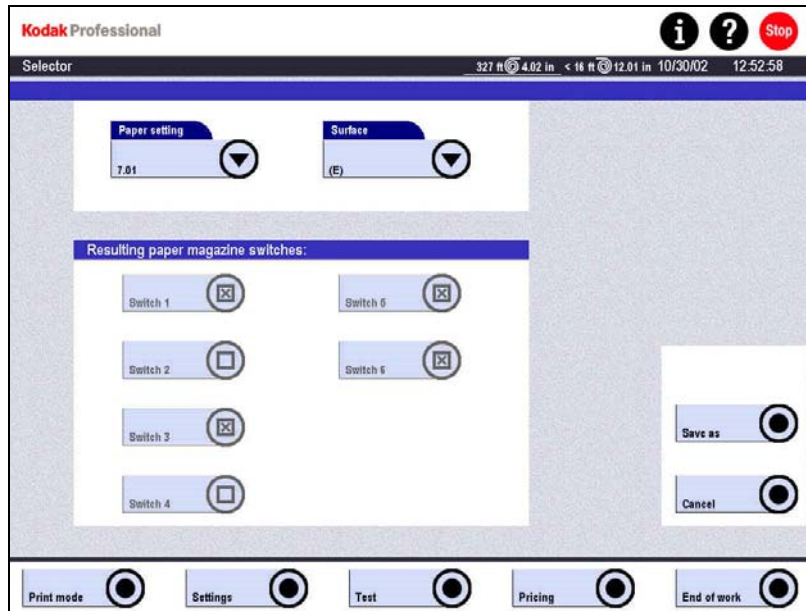
3. Touch **Paper setting** and select from the list of paper settings previously created in the **Machine settings**.

4. Touch **Surface** and select from the list of paper surfaces previously created in the **Machine settings**.

5. Observe the settings displayed under **Resulting paper magazine switches**:

   - Switches 1–4 correspond to the paper width.
   - Switches 5 and 6 correspond to the surface.
   - The switch positions are defined under **Settings / Machine settings / Surfaces** and **Paper settings**. You cannot modify them here.

6. Touch **Save as** if you are creating a new configuration, and enter a name.

   Touch **Save** to save changes to an existing configuration.

   Touch **Cancel** to return to the previous screen without saving.

Print Sizes

Standard print sizes vary from country to country. Because the SRP 30 Laser Printer is a digital printer, it lets you define an almost unlimited number of print sizes. You define a print size by applying the appropriate paper configuration (see above) and cut length (see Page 4-14) to your order configuration (see Page 4-67).

APS Sizes

- Classic   16.7 mm x 23.4 mm
- High Vision   16.7 mm x 30.2 mm
- Panorama   9.5 mm x 30.2 mm

Classic		High Vision		Panorama	
Paper Width		**Paper Width**		**Paper Width**	
Inches	**mm**	**Inches**	**mm**	**Inches**	**mm**
3.25x4.6	83x118	3.25x5.7	83x145	3.25x9.3	83x236
3.5x5.0	89x127	3.5x6.0	89x152	3.5x10.0	89x254
4x6.0	102x152	4x7.0	102x178	4x11.4	102x290
5x7.1	127x182	5x8.8	127x223	8.25x3.5	210x89
5x3.5	127x89	6x10.5	152x268		
6x8.6	152x218	6x3.5	152x89		
6x4.0	152x102	8x4.6	203x116		
8x5.6	203x142	8.25x4.7	210x119		
8.25x5.8	210x147				

Back Print Configurations

The print field is 2 x 40 characters. Positions not used are filled up with points.

1. Touch:
   - **Settings**
   - **Print configurations**
   - **Back print**
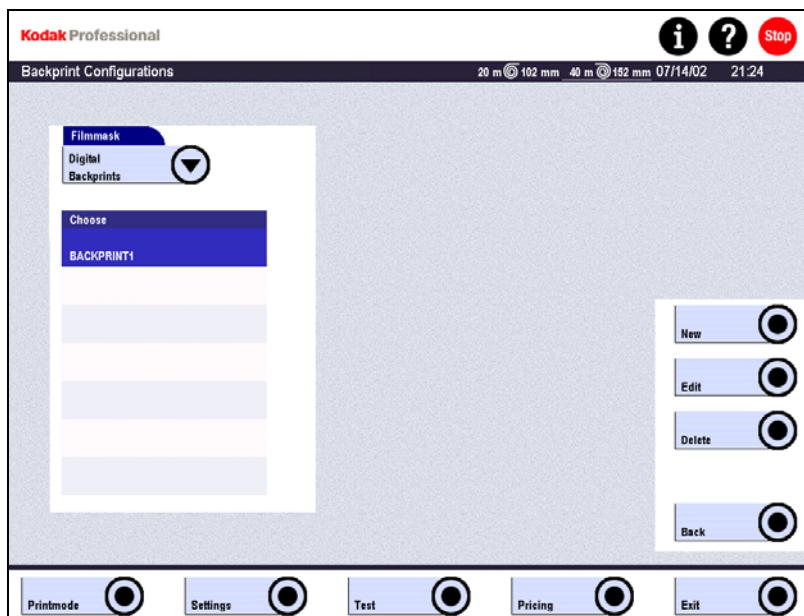
2. Touch **New** or select an existing configuration and touch **Edit**.

3. Select the Standard, APS, or file print **Film mask**.

4. Create back print text with a combination of the machine-generated parameters and additional operator comments:

   a. Add → or Remove ← parameters:
      If you selected the APS film mask, the list offers additional **APS film data** and **APS film text**. See *APS Film Coding* (Page 4-55) and *APS Back Print* (Page 4-56).

   b. If you selected **Free text**, touch the field of the same name and enter the text. The preview of the back print text and the indication about still-available blanks are constantly updated.

5. Sort the selection list with the arrow keys ↑↓.

   This determines the order in the back print text.

6. Touch **Save as** if you are creating a new configuration, and enter a name. The maximum number of characters is 80.

   Touch **Save** to save changes to an existing configuration.

   Touch **Cancel** to return to the previous screen without saving.

Additional Information Regarding Certain Parameters

- **Print date/time** is printed in the formats set under **Machine settings / User interface**.

- **Color/density corrections** prints the corrections of the correction configuration plus the manual corrections. This data in the back print makes exact reorders possible. The corrections are entered in the **Production balance** menu. Digital is considered a basic balance for the **File print** mode. Because these corrections have no effect on individual prints of the order, they are not included in the back print.

- **Color/density corrections (YMCD)**, **Area contrast (ACT)**, **Detail contrast (DCT)**, **Sharpness (SHP), Saturation (SAT)**: Because there are only four positions available in the back print for these corrections, the following abbreviations are required:

-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6	+7	+8	+9
I	H	G	F	E	D	C	B	A	N	1	2	3	4	5	6	7	8	9

APS Film Coding

The film contains optical / magnetic coding to record print sizes (High Vision, Classic, Panorama) and special back print text.

Coding includes:

- 2 magnetic tracks on which the amateur can save data in the APS camera
- 2 magnetic tracks on which the photofinisher can modify or add product-relevant data
- Film tip to record film-specific information
- Data that only applies to one frame (image title, aspect ratio, exposure data) is recorded in the "negative" data area.
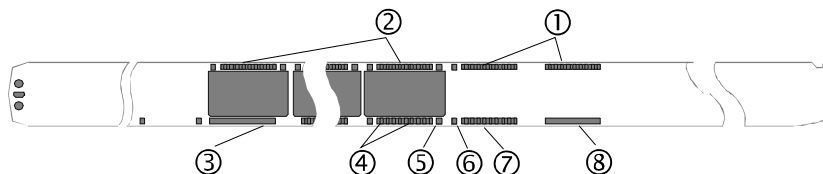
① Higher-ranking data for photo finishing

② Magnetic image data for photo finishing

③ Optical image data of the manufacturer

④ Magnetic camera image data of the customer

⑤ Optical camera image data of the customer

    ■   Panorama

    ■■   Classic

    __   High Vision

⑥ Higher-ranking optical data of the camera (exposure conditions, such as flash)

⑦ Higher-ranking magnetic data of the camera (exposure conditions, such as flash)

⑧ Higher-ranking optical data of the manufacturer

APS Back Print

On APS film, the first 35 positions are predefined for the film, date, time data, and cannot be influenced.

Positions 41 to 80 are reserved for film text, which the amateur selects on the camera.

This data can be included in the back print. It is available when a back print configuration is created for the APS film mask:

- **APS Film data**   35 positions
- **APS Film text**   maximum of 40 positions

Index Print Configurations

1. Touch:
    - **Settings**
    - **Print configurations**
    - **Index print**

2. Select a **Film mask**.

    All layouts are listed (no filters) or only those layouts that match the selected film mask.
3. Touch **New** or select an existing configuration and touch **Edit**.
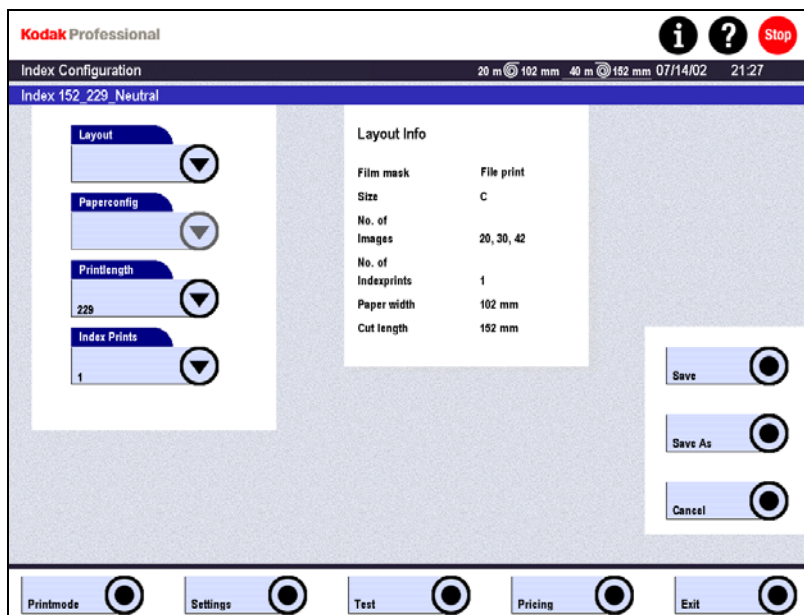
4. Touch these buttons to define the corresponding setting:

- **Layout**

  All layout patterns are listed that are available for the selected film mask.

- **Paper Config.**

  All paper configurations whose width corresponds to the width and length of the layout pattern are selectable.

- **Print Length**

  All specified print lengths are listed. The presetting is arranged so that if the paper configuration corresponds to the width (length) of the layout pattern, the print length that comes closest to the length (width) of the layout pattern will be set.

- **Index Prints**

  Select the number of prints per frame (PpF) from the list or touch **New entry for PpF** and enter a new value.

5. Touch **Save as** if you are creating a new configuration, and enter a name.

   Touch **Save** to save changes to an existing configuration.

   Touch **Cancel** to return to the previous screen without saving.

In the **Layout Info** area of the screen:

- **No. of Images**

  Indicates how many images can appear on one index print. Every index print layout provides several possibilities (for example, 20, 30, 42, depending on the setting in the Layout Program).

- **No. of Index prints**

  If the single frames of an order do not fit on an index print, a second index print is created automatically.

NOTE: The system automatically selects the best layout when the film is processed. This is the largest layout in the strip mode.

Correction Configurations

You can combine the printer's image improvement features to create special correction configurations for certain subject groups (such as winter shots with snow).

1. Touch:
   - **Settings**
   - **Print configurations**
   - **Corrections**
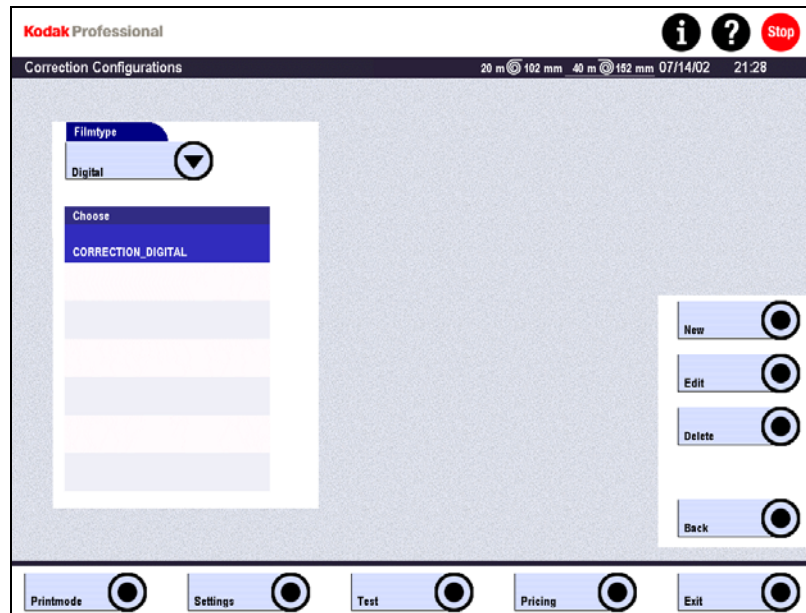
2. Select a **Film type**.
3. Touch **New** or select an existing configuration and touch **Edit**.
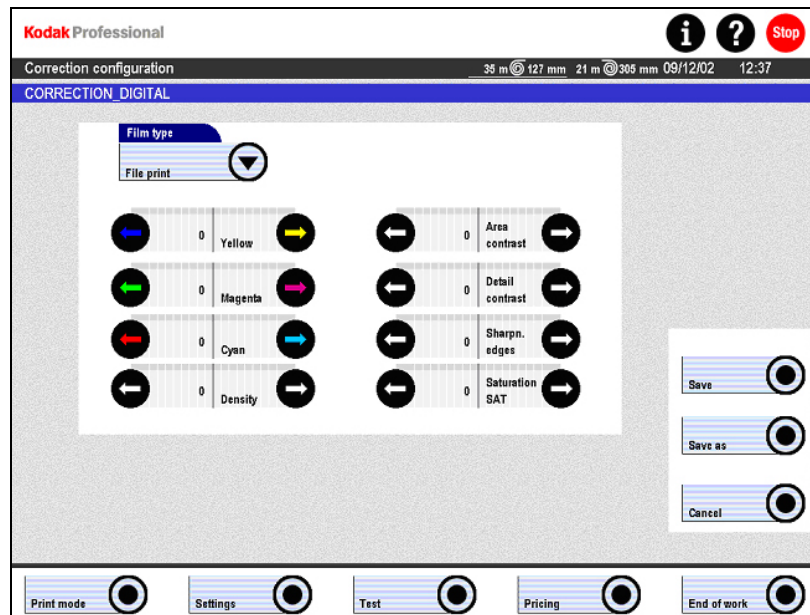
4. Touch the appropriate buttons to enter corrections on a scale of -9 to +9 for:

    *   **Yellow**, **Magenta**, **Cyan**, and **Density**
    *   **Area contrast (ACT)**
    *   **Detail contrast (DCT)**
    *   **Sharpn. edges (SHP)**
    *   **Saturation (SAT)**

5. Touch **Save as** if you are creating a new configuration, and enter a name.

    Touch **Save** to save changes to an existing configuration.

   Touch **Cancel** to return to the previous screen without saving.

These corrections appear in the back print if back print text was selected. See *Back Print Configurations / Additional Information Regarding Certain Parameters* on Page 4-54.

Autosave Configurations

Autosave configurations let you save all frames of a film to data media as image files. The aspect ratio of each frame is preserved. Each frame is given a clear name derived from the frame number.

The system saves all scanned frames, but only one print per frame. Therefore, if you make several different prints from one frame, only the last one is saved.

1. Touch:
    - **Settings**
    - **Print configurations**
    - **Autosave**
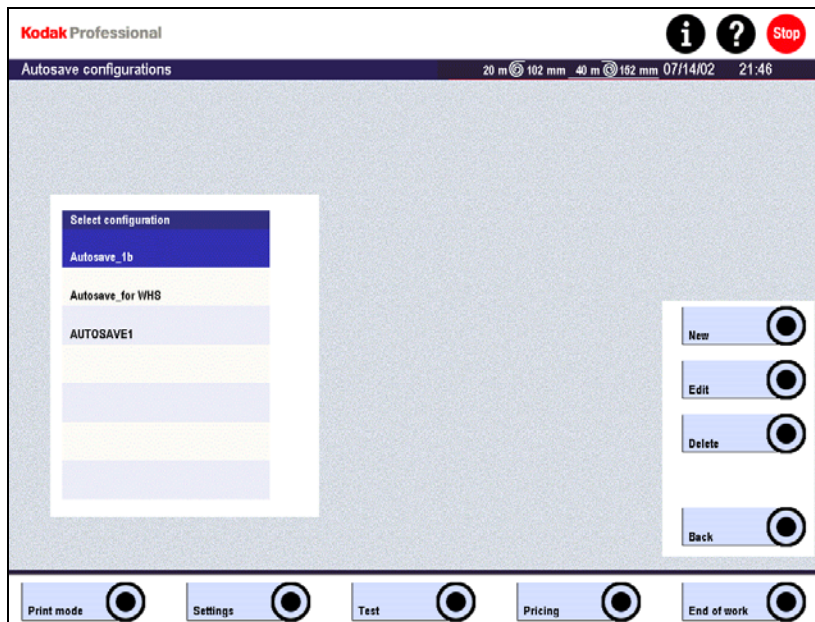
2. Select **New** or select an existing configuration and touch **Edit**.
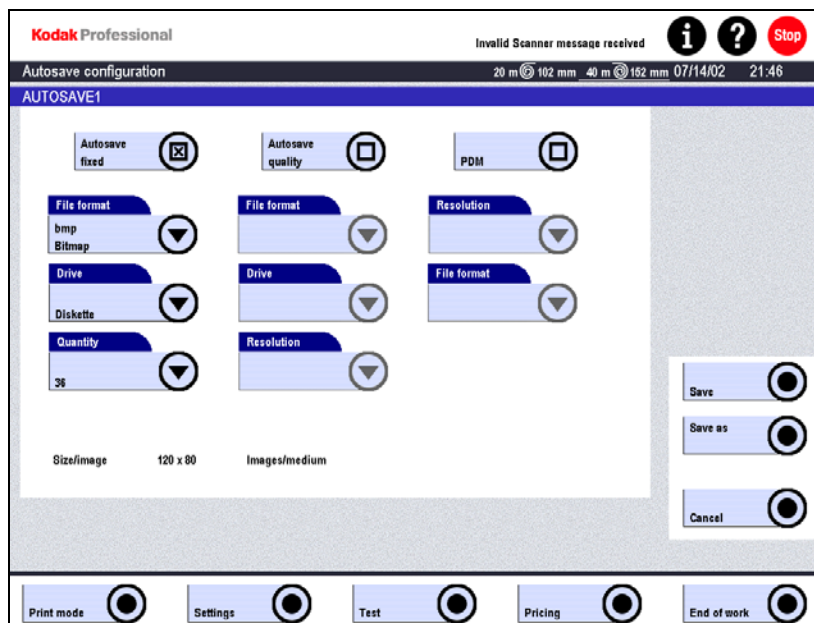
3. Enable one of the three Autosave types: **Autosave fixed**, **Autosave quality**, or **PDM**.

   The three types exclude each other, so only the selection buttons belonging to the enabled type are active.

4. Select the settings associated with the selected **Autosave** type. Each type is explained below:

   • **Autosave fixed**
   Because a fixed file number per interchangeable data medium is indicated (presently for diskette only), only uncompressed file formats (bmp) are authorized.

   The size per image is determined on the basis of the selected storage medium and an estimate of the fixed file number per medium.
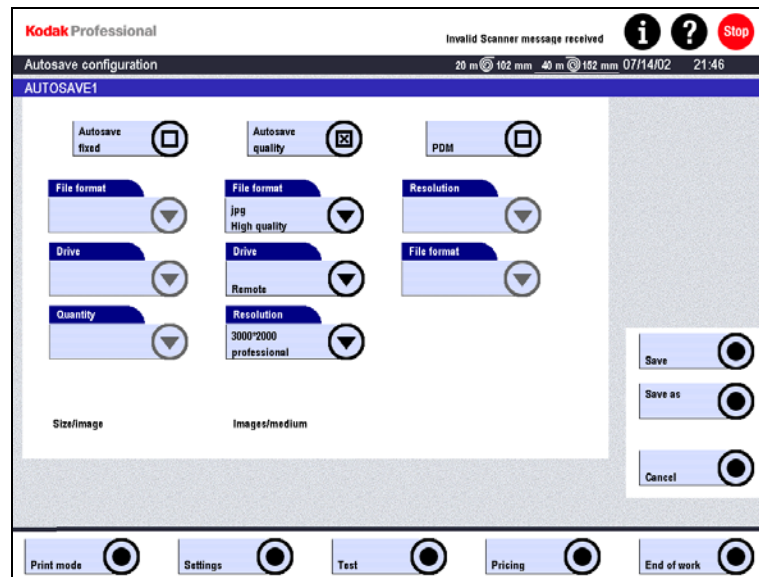
- **Autosave quality**
  Select from six predefined resolutions. All file formats (bmp, jpg) and drives (including hard disk and Remote) are permissible.

  If you select an interchangeable data medium for storage, the system displays an estimate of the number of images that can be saved on the medium.
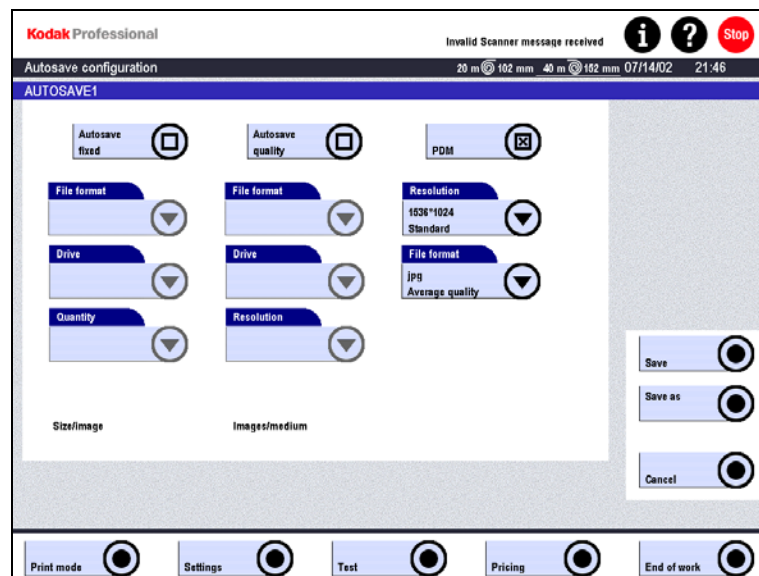
- **PDM**
  Resolutions and file formats are the same as for **Autosave quality**. The PDM address has been defined previously. See *Digital Order Settings* on Page 4-45.

5. Touch **Save as** if you are creating a new configuration, and enter a name.

   Touch **Save** to save changes to an existing configuration.

   Touch **Cancel** to return to the previous screen without saving.

Front Print Configurations

Front Print configurations let you add free text to the front of the print for APS films, and to the data on the magnetic strip (data entered on the camera).

1. Touch:
    - **Settings**
    - **Print configurations**
    - **Front print**

2. Select a **Film mask**.
3. Touch **New** or select an existing configuration and touch **Edit**.
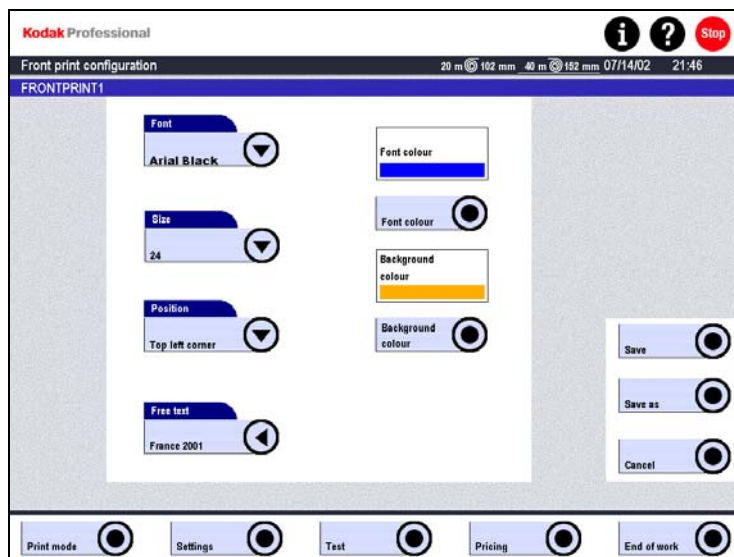
4. Touch the appropriate buttons to enter **Font**, **Size**, **Position**, and **Free text**.
5. Touch **Font color** or **Background color** to open the next screen.
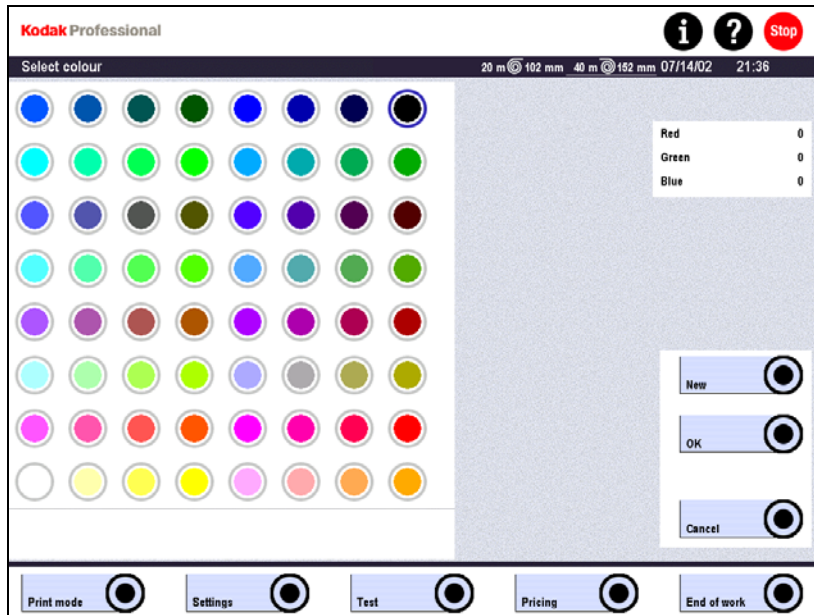
6. Select a color from the palette and touch **OK**, or touch **New** to create a new color. The following screen appears.
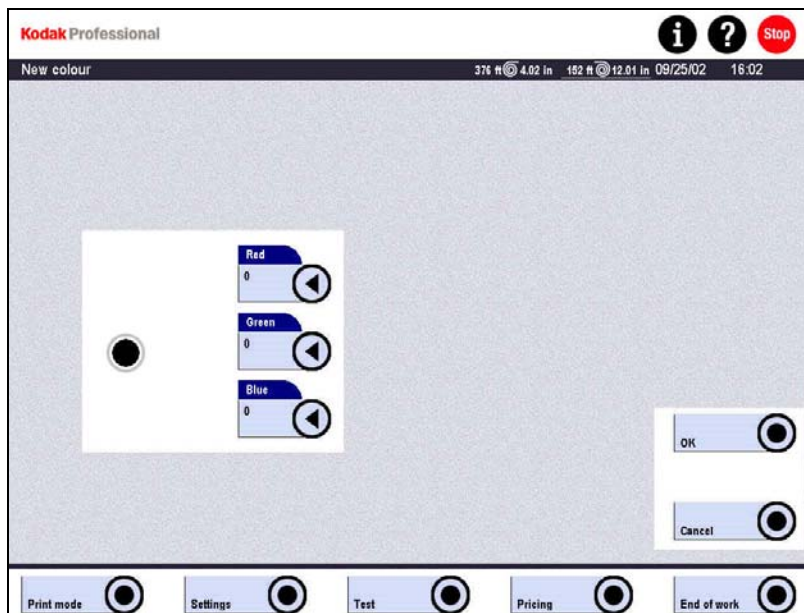
Modify the red, green, and blue color components to create the desired color, and press **OK** two times.

7. Touch **Save as** if you are creating a new configuration, and enter a name.

Touch **Save** to save changes to an existing configuration.

Touch **Cancel** to return to the previous screen without saving.

Combiprint Configurations

Combiprint configurations are for multiple printing of a picture in different sizes or the same size (ID or passport photos) on one sheet of paper.

1. Touch:
   - **Settings**
   - **Print configurations**
   - **Combiprint**
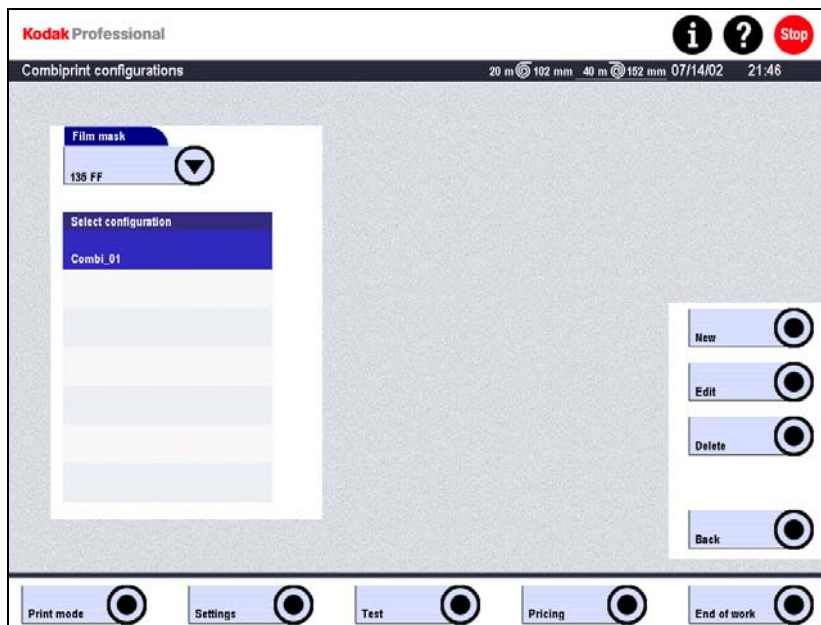
2. Select a **Film mask**.

   If you select no filters, the system lists all layouts. If you select a film mask, the system lists only those layouts that match the selected film mask.

3. Touch **New** or select an existing configuration and touch **Edit**.
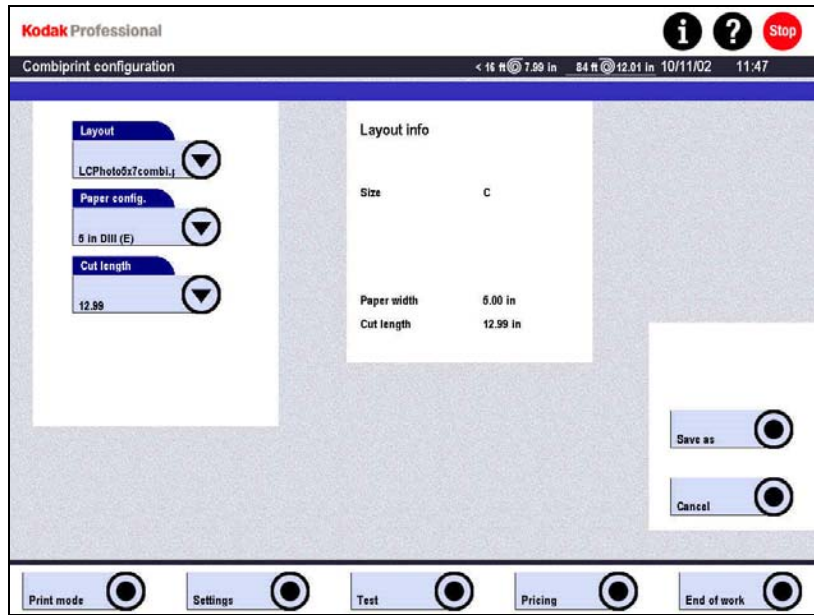
4. Touch the following buttons and make the appropriate selections.

- **Layout**

  Only the layouts that match the selected film mask are available.

- **Paper config.**

  All paper configurations with width corresponding to the width of the layout pattern are selectable.

- **Cut length**

  All specified cut lengths are listed. The preset is arranged so that if the paper configuration corresponds to the width of the layout pattern, the system will set the cut length that comes closest to the length of the layout pattern.

5. Touch **Save as** if you are creating a new configuration, and enter a name.

   Touch **Save** to save changes to an existing configuration.

   Touch **Cancel** to return to the previous screen without saving.

Order Configurations

You must create sub-configurations before you can access them in the order configurations.

You can use sub-configuration in any number of order configurations.

1. Touch:
   - **Settings**
   - **Print configurations**
   - **Order**
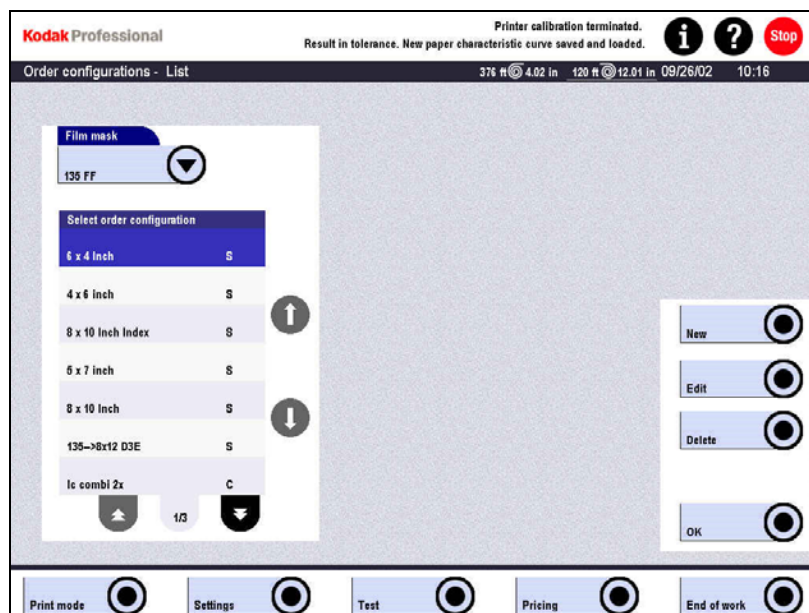
2. Select a **Film mask**.

   The system lists all associated configurations that were already created.

NOTE: Black-and-white (B/W) films can only be printed in the **Autoprint** and **Manual positioning** print modes. Before inserting B/W film, select one of the order configurations set under the **B/W** film type. See *Black-and-White Prints* on Page 4-78.

3. Touch **New** or select an existing configuration and touch **Edit**.
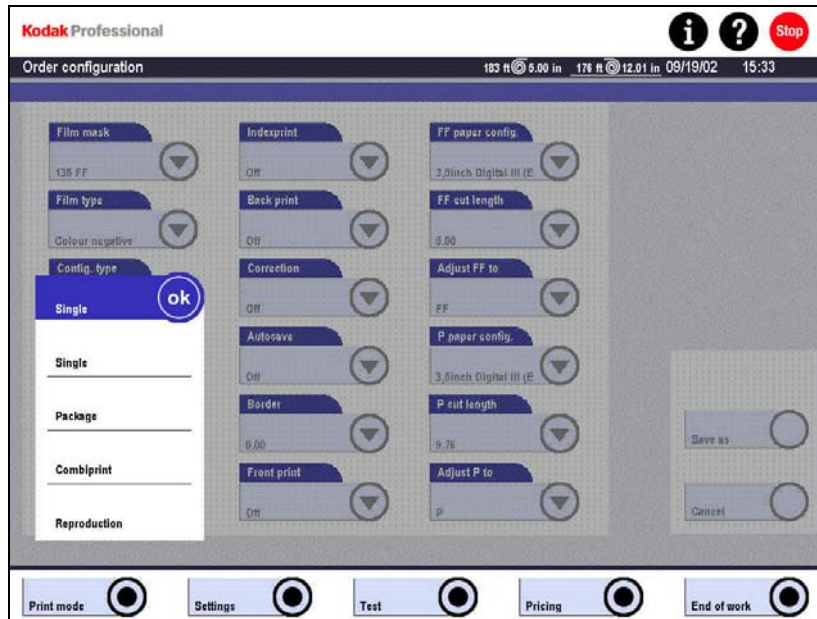
4. Touch **Config. Type** and select one of the following configurations:

- **Single**

  Single order configuration

- **Package**

  Several order configurations are placed into one package to print different sizes (frame, file print) in one step. This means that you must create single order configurations before you can create a package.

- **Combiprint**

  Configurations for multiple printing of a picture in different sizes or the same size (ID or passport photos) on one sheet of paper.

- **Reproduction**

  This order configuration turns off all image enhancement functions so that the prints correspond exactly to the original.

  Application example: Prints created with programs like PHOTOSHOP or shots that were artificially altered are restored to their original image characteristics.

  The procedures for defining each of these configuration types appear on the next several pages.

Single Configurations

Film Mask: 135, 120, 110

This screen results from selecting **New** or **Edit** from the **Order configurations – List** screen (Page 4-67).
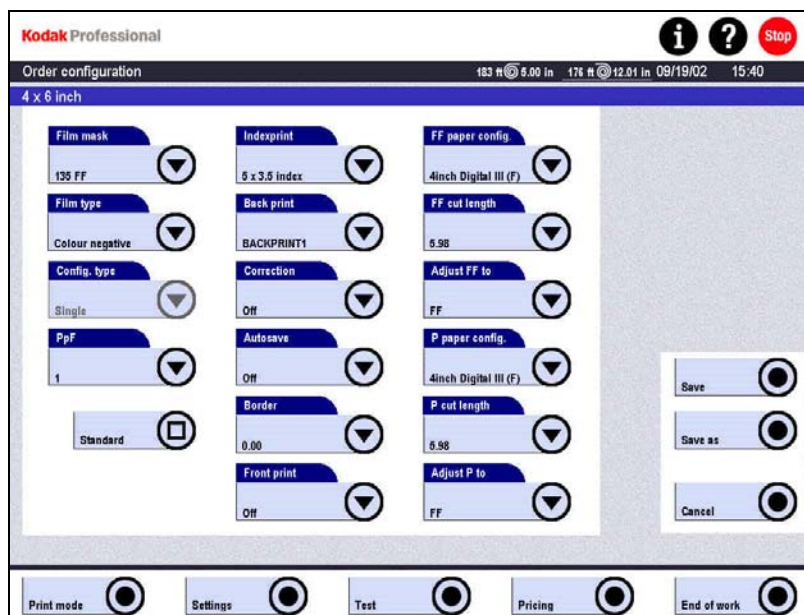
1. Select the appropriate sub-configurations or set to **Off**.
2. Touch **PpF** and select the number of prints per frame (preset = 1). To create a value not listed, use the **New entry for PpF** option.
3. Touch **Border** and select a border from 4–60 mm or set to 0 for borderless prints. To create a value not listed, use the **New entry for border** option.
4. Touch:
    *   **FF paper config.** and select a paper configuration for Full Frame
    *   **FF cut length** and select a cut length for Full Frame
    *   **P paper config.** and select a paper configuration for Panorama
    *   **P cut length** and select a cut length for Panorama
5. Touch **Save as** if you are creating a new configuration, and enter a name.

    Touch **Save** to save changes to an existing configuration.

   Touch **Cancel** to return to the previous screen without saving.

NOTE: For an explanation of the **Standard** button, see *Defining a Standard Configuration* on Page 4-79.

Film Mask: File Print

This screen results from selecting **New** or **Edit** from the **Order configurations – List** screen (Page 4-67).
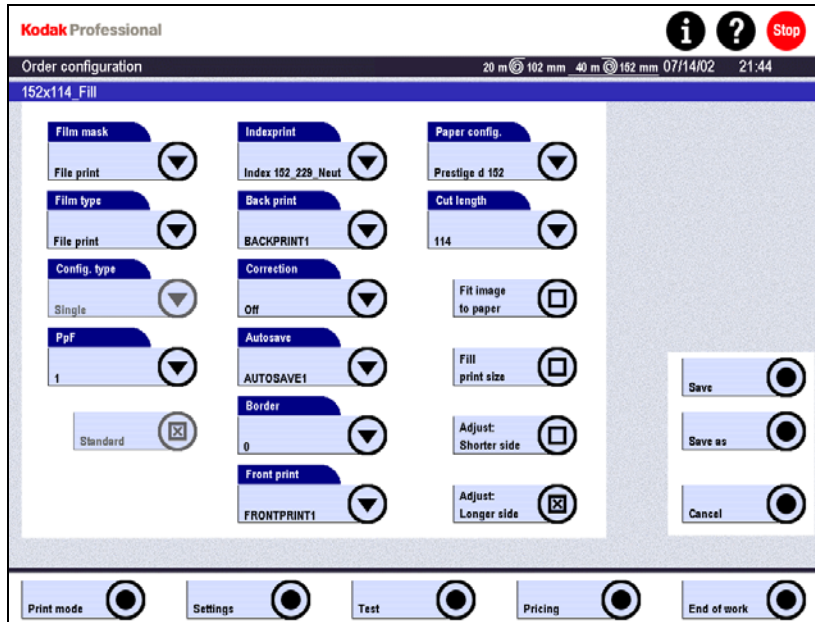
1. Select the sub-configurations **PpF, Border**, **Paper config.**, and **Cut length**, as described in *Film Mask: 135, 120, 110*, on Page 4-69.

2. Enable one of the following:

   - **Fit image to paper** (standard setting). The whole image is printed, but a white border is added.

   - **Fill print size**. Uses center cropping. Some image information is lost.

   - **Adjust: Shorter side**. The shorter side of the image is adjusted to the paper width. The whole image is printed. The cut length is variable.

   - **Adjust: Longer side**. The longer side of the image is adjusted to the paper width. The whole image is printed. The cut length is variable.

Example:
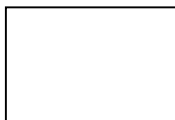
Paper: 8x12 in.   Image: 8x10 in.
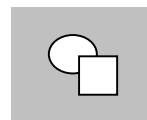
Fit image to paper   **Adjust: Shorter side**
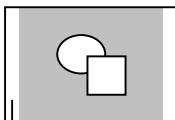
Border (white)   Paper cut to 10 in.
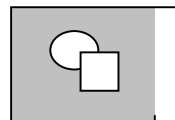
Fill print size   **Adjust: Longer side**

Lost image
information   Paper cut to 6.4 in.
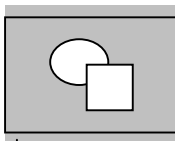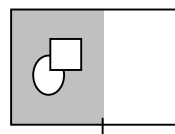
3. Touch **Save as** if you are creating a new configuration, and enter a name.

   Touch **Save** to save changes to an existing configuration.

   Touch **Cancel** to return to the previous screen without saving.

NOTE: The SRP 30 Laser Printer processes completely prepared network orders
(image files plus order description) during down times or when the operator
requests that they be printed automatically.

Prerequisite:
You must create order configurations that correspond to the descriptive order
file. These are configurations for which you select the **File print** option in the
Film mask selection box.

Film Mask: APS (IX 240)

This screen results from selecting **New** or **Edit** from the **Order configurations – List** screen (Page 4-67).
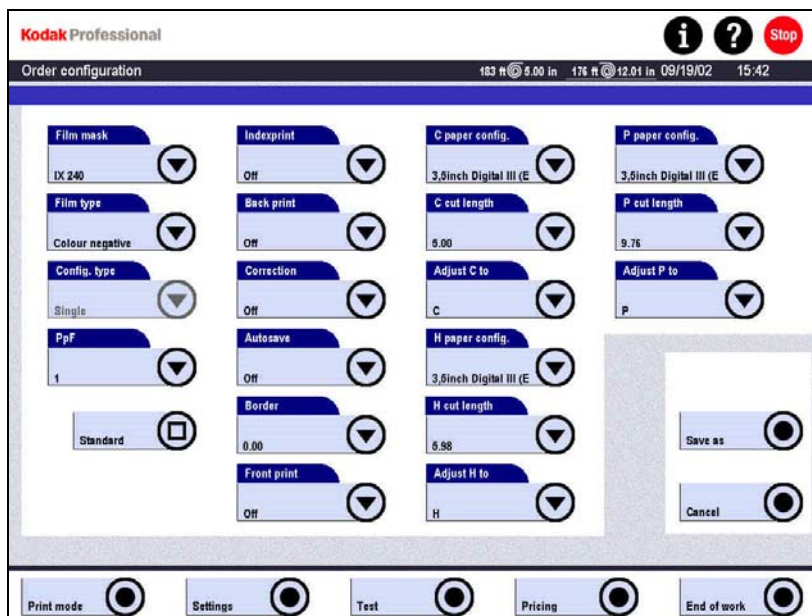
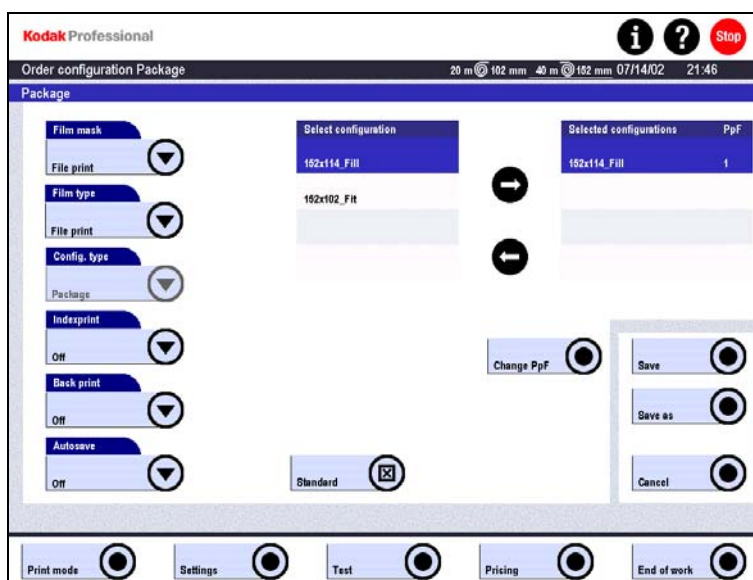1. Select the appropriate sub-configurations or set to **Off**.
2. Touch **PpF** and select the number of prints per frame (preset = 1). To create a value not listed, use the **New entry for PpF** option.
3. Touch **Border** and select a border from 4–60 mm or set to 0 for borderless prints. To create a value not listed, use the **New entry for border** option.
4. Touch:
   - **C paper config.** and select a paper configuration for Classic
   - **C cut length** and select a cut length for Classic
   - **H paper config.** and select a paper configuration for High Vision
   - **H cut length** and select a cut length for High Vision
   - **P paper config.** and select a paper configuration for Panorama
   - **P cut length** and select a cut length for Panorama
5. Touch **Save as** if you are creating a new configuration, and enter a name.

   Touch **Save** to save changes to an existing configuration.

   Touch **Cancel** to return to the previous screen without saving.

Ignoring the APS Coding of the Camera

The person taking the pictures can select and record three different print sizes on APS film.

The selected size is saved optically or magnetically on the associated frame. The system reads the saved data and prints the coded size of each frame. The prerequisite for this is a mixed film configuration for all print sizes.

The APS full frame is always exposed on the film, no matter which aspect ratio was selected on the camera.

It is therefore possible to ignore the camera coding and print a different size.
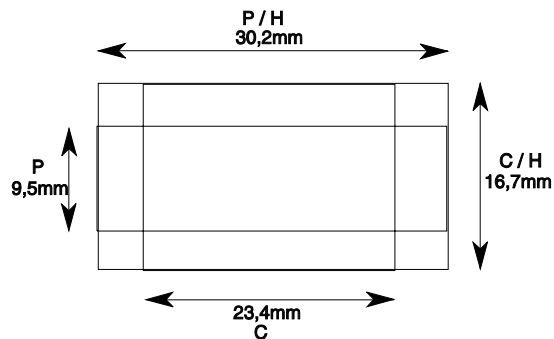
APS Film Sizes	Aspect ratio
High Vision	16:9
Classic	3:2
Panorama	1:3

- For this purpose, you must create three more configurations in addition to the mixed film configuration:
  - Paper configurations and cut lengths of all 3 sizes for High Vision (A)
  - Paper configurations and cut lengths of all 3 sizes for Classic (B)
  - Paper configurations and cut lengths of all 3 sizes for Panorama (C)
- To print one single size without taking into account the camera coding:

  Select the configuration (A, B or C) in which only High Vision or only Classic or only Panorama is set for all three APS sizes.

Film Mask: Slide

This screen results from selecting **New** or **Edit** from the **Order configurations – List** screen (Page 4-67).
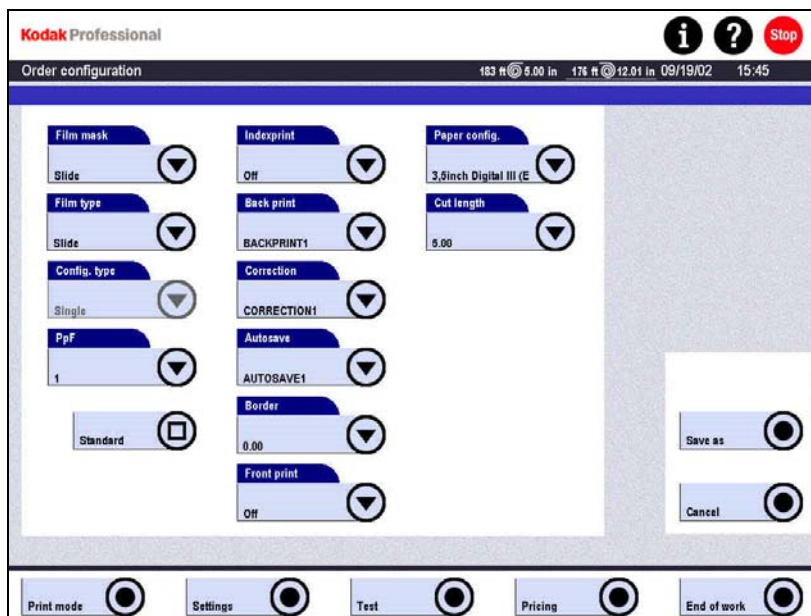
1. Touch **PpF** and select the number of prints per frame (preset = 1). To create a value not listed, use the **New entry for PpF** option.

2. Touch **Border** and select a border from 4–60 mm or set to 0 for borderless prints. To create a value not listed, use the **New entry for border** option.

3. Touch **Paper config.** and **Cut length** and make the appropriate selections.

4. Touch **Save as** if you are creating a new configuration, and enter a name.

   Touch **Save** to save changes to an existing configuration.

   Touch **Cancel** to return to the previous screen without saving.

Package Configurations

Package configurations let you assemble any combination of single order configurations.

NOTE: If you use a configuration with more than two paper widths for printing, you may receive a system request to change the paper magazine.

1. From the **Order configurations - List** screen (Page 4-67), touch **New**, or select an existing package configuration (designated by "P") and touch **Edit**.

2. Select a **Film mask** and **Film type**.
3. Touch **Config. type** and select **Package**.

NOTE: You can only change **Config. type** if you selected **New** from the **Order configurations - List** screen.

4. Select the appropriate sub-configurations or set **Off**.

NOTE: For **Index print**, **Back print**, and **Autosave**, the settings you make here are applied. The settings in the single configurations on which they are based are ignored.

5. From the **Select configuration** list, use → to add the desired order configurations to the package. (Remove any configurations from the package with ←.)

NOTE: Order configurations only appear in the **Select configuration** list:
- If they match the selected film mask
- If they are not package configurations themselves (a package cannot be part of another package)
- If the **PpF** is not zero

6. Touch **Change PpF** and select the number of prints per frame (preset = 1). To create a value not listed, use the **New entry for PpF** option.

7. Touch **Save as** if you are creating a new configuration, and enter a name.

   Touch **Save** to save changes to an existing configuration.

   Touch **Cancel** to return to the previous screen without saving.

NOTE: For an explanation of the **Standard** button, see *Defining a Standard Configuration* on Page 4-79.

Combiprint Configurations

Use this order configuration for multiple printing of a picture in different sizes or the same size (ID or passport photos) on one sheet of paper.

1. From the **Order configurations - List** screen (Page 4-67), touch **New**, or select an existing combiprint configuration (designated by "C") and touch **Edit**.
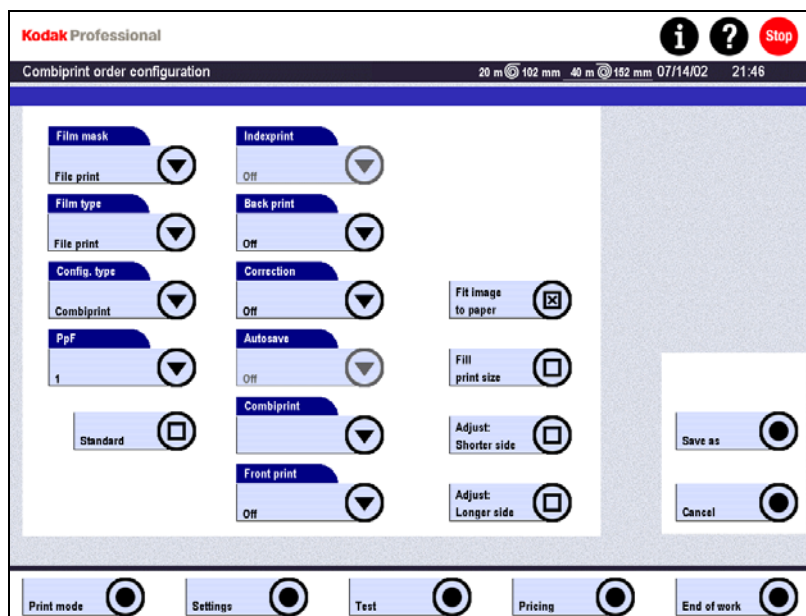
2. Select a **Film mask** and **Film type**.

3. Touch **Config. type** and select **Combiprint**.

NOTE: You can only change **Config. type** if you selected **New** from the **Order configurations - List** screen.

4. Select the appropriate sub-configurations or set **Off**.

5. Touch **PpF** and select the number of prints per frame (preset = 1). To create a value not listed, use the **New entry for PpF** option.

6. Touch **Border** and select a border from 4–60 mm or set to 0 for borderless prints. To create a value not listed, use the **New entry for border** option.

7. Touch **Combiprint** and select from the list of layouts available for the selected film mask.

8. These buttons are available if you select **File print** for the film mask:

   - **Fit image to paper**
   - **Fill print size**
   - **Adjust: Shorter side**
   - **Adjust: Longer side**

   Enable the appropriate function. For descriptions, see *Film Mask: File Print* on Page 4-70.

9. Touch **Save as** and enter a name, or touch **Cancel** to return to the previous screen without saving.

Reproduction Configurations

Use these order configurations to print files without TFS (Total Film Scanning).

Printing from a reproduction configuration is done without preview, and the configuration cannot be changed. The image is printed in the middle of a large size (400 dpi), for items such as CD inlays.

1. From the **Order configurations - List** screen (Page 4-67), touch **New**, or select an existing reproduction configuration (designated by "R") and touch **Edit**.
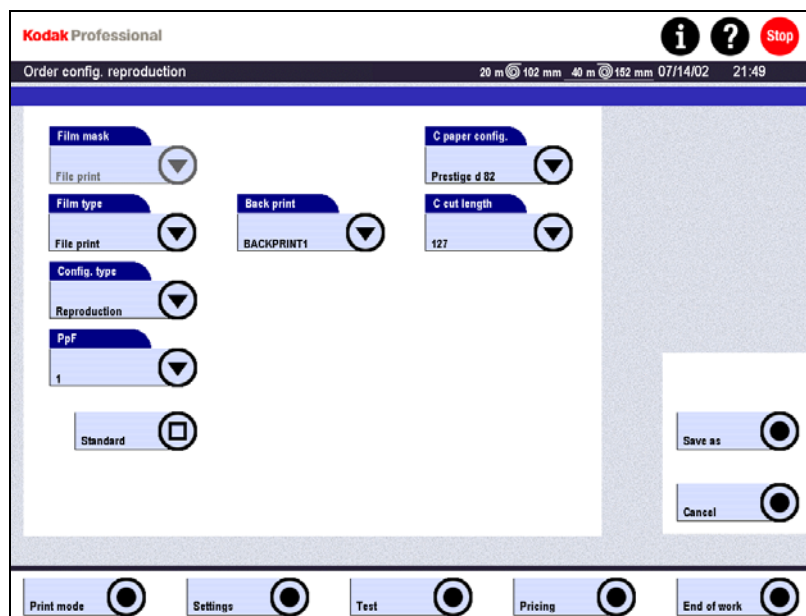
2. Select a **Film mask** and **Film type**.
3. Touch **Config. type** and select **Reproduction**.

NOTE: The **Config. type** can only be changed if you selected **New** from the **Order configurations - List** screen.

4. Select a **Back print** or set to **Off**.
5. Touch **PpF** and select the number of prints per frame (preset = 1). To create a value not listed, use the **New entry for PpF** option.
6. Touch:
   - **C paper config.** and select a paper configuration for Classic.
   - **C cut length** and select a cut length for Classic.
7. Touch **Save as** and enter a name.

   Touch **Cancel** to return to the previous screen without saving.

Configuration Types in the Order Configuration List

The configuration types are identified in the list by letters:

- **S**   Single
- **P**   Package
- **C**   Combiprint
- **R**   Reproduction
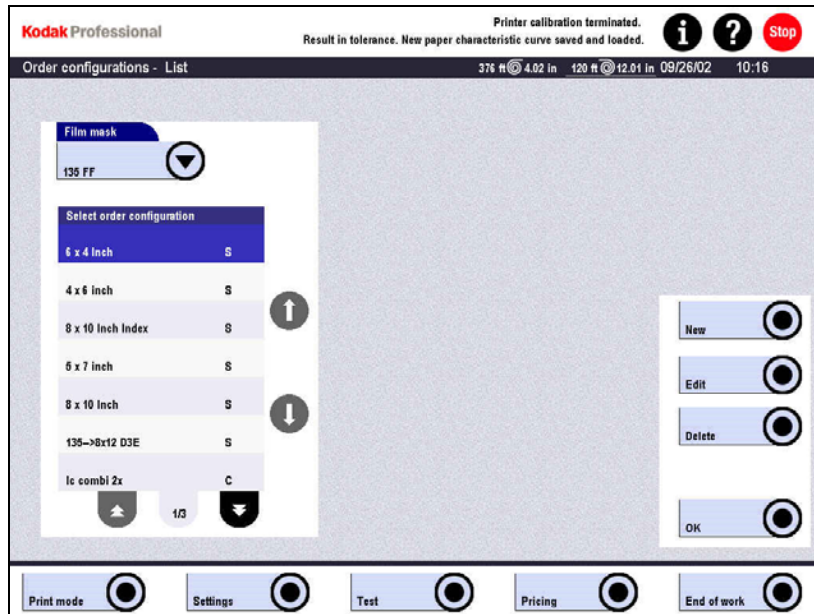
The standard configuration is always shown in the first line in all configuration lists.

Black-and-White Prints

When Scanning Color Negative Film

Use the **B/W** button in the order configuration to eliminate colors by calculation when frames are digitized. The prints are then B/W.

When Scanning Black-and-White Film

The system can only process B/W films in the **Autoprint** and **Manual positioning** print modes.

Before inserting the B/W film, select an order configuration in which the film type is set to **B/W**.

If you select an order configuration with the film type **Color negative**, the prescanner expects color negative film. The system stops the processing with an error message and ejects the B/W film.

To produce prints with a color cast, create and use a correction with saturation and color up to +9. You can also accomplish this with **Modify configuration**.

NOTE: The system might not be able to position and print some thin, unmasked B/W films (such as ILFORD XP2 film) because they have no recognizable film mask.

There is no scratch correction for B/W films. If scratch correction is enabled, the system automatically disables it when printing B/W films, and enables it again when printing color frames.

Defining a Standard Configuration

For each film mask—135 FF, 120, File print, etc.—you can define a Single and a Package order configuration to be the standard configuration. The system always displays the standard configuration in the first position in the configuration list and uses it automatically:

- After a system startup
- After a change of the film mask
- After the change to Autoprint
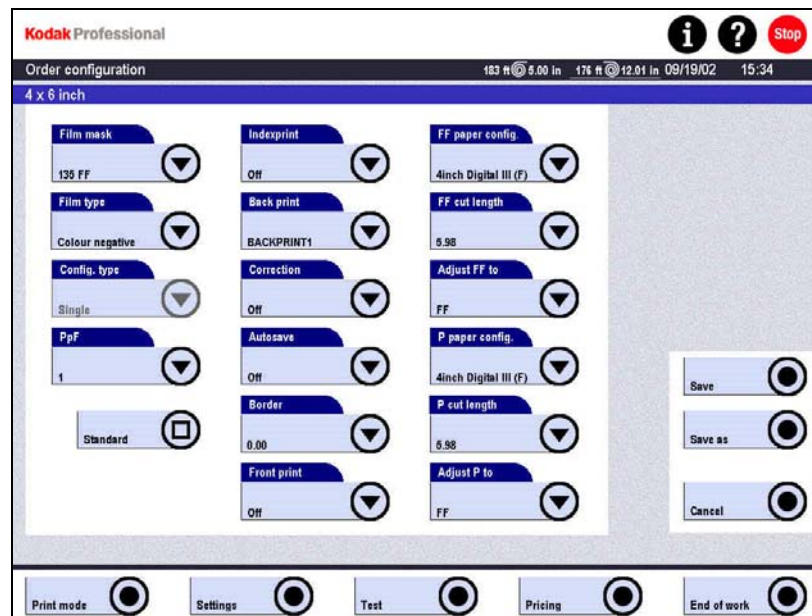
Touch **Standard** (bottom left on the screen) to enable the displayed configuration as the standard.

Pricing Configurations

NOTE: Pricing + Label Printer is an optional accessory.
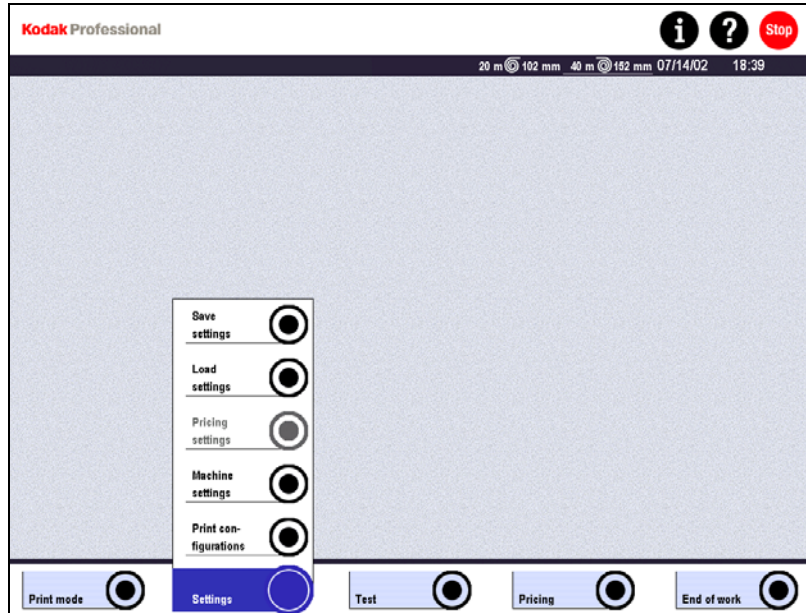
The **Pricing settings** and the **Pricing** function in the **Pricing + Statistics** menu are disabled until you purchase a license for their use. At that time, the functions that exist already in the main software become available. (See *Enabling the Software* on Page 4-22).

The **Pricing settings** let you define all of the data needed for price calculations and printing of price labels. In a manner similar to the print configurations, you can create sub-categories here and combine them to form higher price categories.

Information on the installation, entry of price categories, price calculations, and label printing is provided in the Technical Documentation that accompanies the pricing accessory.

Order numbers:

- KODAK PROFESSIONAL Label Printer (CE/TUV) for RP30/SRP30,
  Catalog No. 150 2103
- KODAK PROFESSIONAL Label Printer (UL/FCC) for RP30/SRP30,
  Catalog No. 888 5329

Save / Load Settings and Configurations

Always save settings:

- After the first implementation and creation of customer configurations.
- After major modifications of settings and/or configurations.
- At regular intervals, such as after a PBL.
- Prior to the installation of a software update.

  This is recommended because you can only reload the backup files using the same version of software. Otherwise, the database might be destroyed.

  If you are not sure of the software version, touch **i / Version Info**.

- To copy configurations to other SRP Laser Printers.

To save:

1. Touch:
    - **Settings**
    - **Save settings**
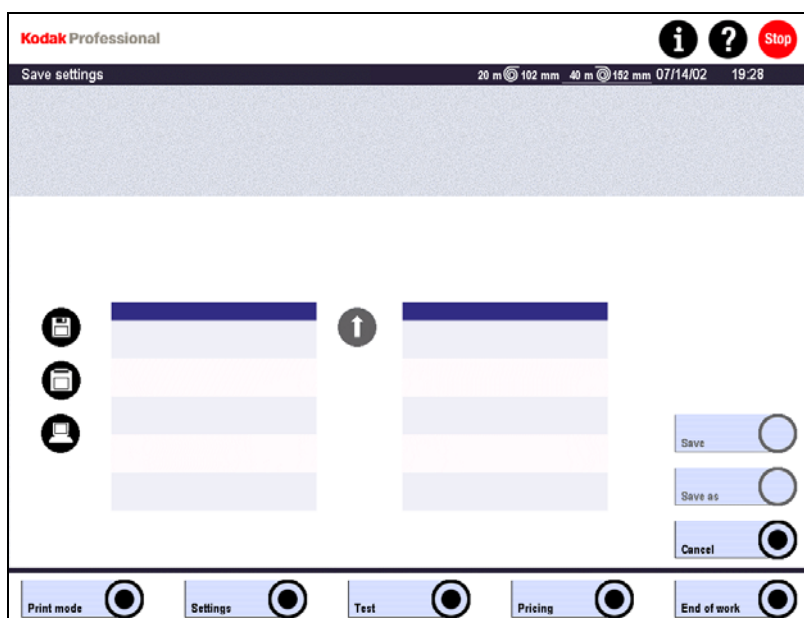
2. Touch the drive icon and select a directory using the arrow.
    - A ZIP disk is recommended if there are many modified database entries.
    - The left column lists all files of the drive/directory. The right column lists the existing backup files. The file name is an indicator for what is saved.
3. To create a new backup file, touch **Save as** and enter a file name. To update an existing backup file, touch **Save**.

To load:

1. Touch:
    *   **Settings**
    *   **Load settings**
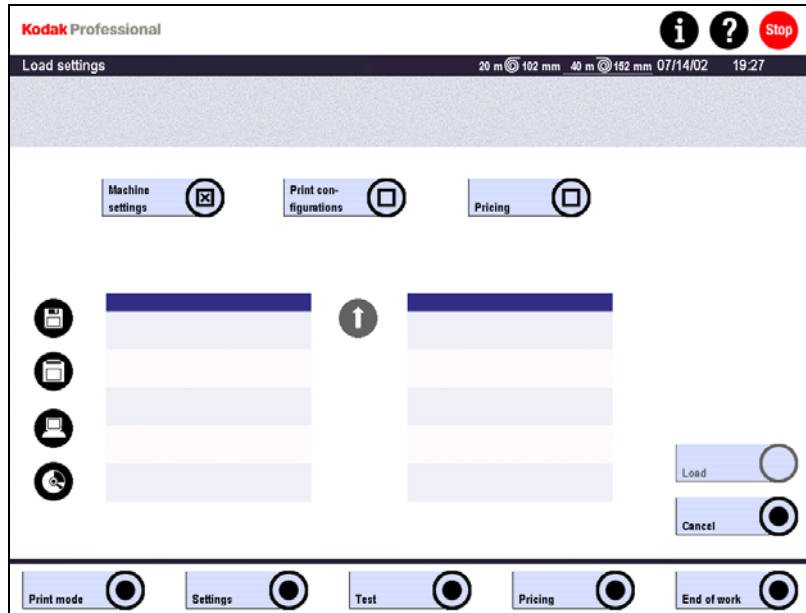
2. Mark the information you wish to load: **Machine settings**, **Print configurations**, or **Pricing**. (You can select all three at the same time.)
3. Select a medium and, if necessary, a directory and a file name.
4. Touch **Load**.

Chapter 5 Tests

Contents

Introduction

Before the start of production, the printer and paper processor must be carefully calibrated to produce the highest quality prints.

The purpose of the printer calibration is to align the individual elements of the KODAK PROFESSIONAL SRP 30 Laser Printer – print engine, paper, and paper processor – with respect to each other. The result of a successful calibration is the neutral appearance of the grayscale on the last test print.

You can perform tests for the SRP 30 Laser Printer before or during production. For example, a Paper Balance (PBL) test is required when paper with a new emulsion number is inserted.

This chapter provides details about these tests.

Printer Tests

Overview

MBL

The **M**aster **B**al**a**nce (MBL) test keeps the production stable and uniform. This provides consistent, every day compensation for chemical fluctuations and/or changes in the paper process.

The MBL is printed on the "master" paper, which is the paper that is used most frequently in the lab. The MBL then calibrates the master paper directly. Based on the changes determined on the master paper between the last and the current MBL, all other paper styles are adapted. Therefore, any change in the MBL influences all paper configurations.

PBL

The **P**aper **B**al**a**nce (PBL) test compensates for the differences among the various paper types and widths, and provides for uniform rendering of the colors on all paper emulsions in use.

The PBL calibration only applies to the paper on which the PBL is printed. Other paper styles are not affected. Every paper configuration (for example, every individual cassette code) used for production must be calibrated.

The PBL consists of two steps:

1. The working point of the laser and the maximum densities are determined for the paper. Usually this step is only required once, when the PBL is determined for the first time. For this purpose, the test print's **graded densities** and **halo print** are exposed.
2. The PBL test print is used to adjust a neutral grayscale. Several cycles are usually required.

Prerequisites for MBL and PBL Calibration

Before printing the MBL and PBL calibration:

1. Check that there are no print orders pending.
2. Touch the Information (**i**) button to check that no paper is in the paper transport of the printer and the paper processor for the MBL and the PBL calibration.
3. Check that there is enough paper in the magazine for the two tests (approximately 3 m [40 in.]).
4. Check that the chemical solutions are at nominal temperature.

Printing a PBL Test

When it is necessary to print a PBL test, follow these instructions.
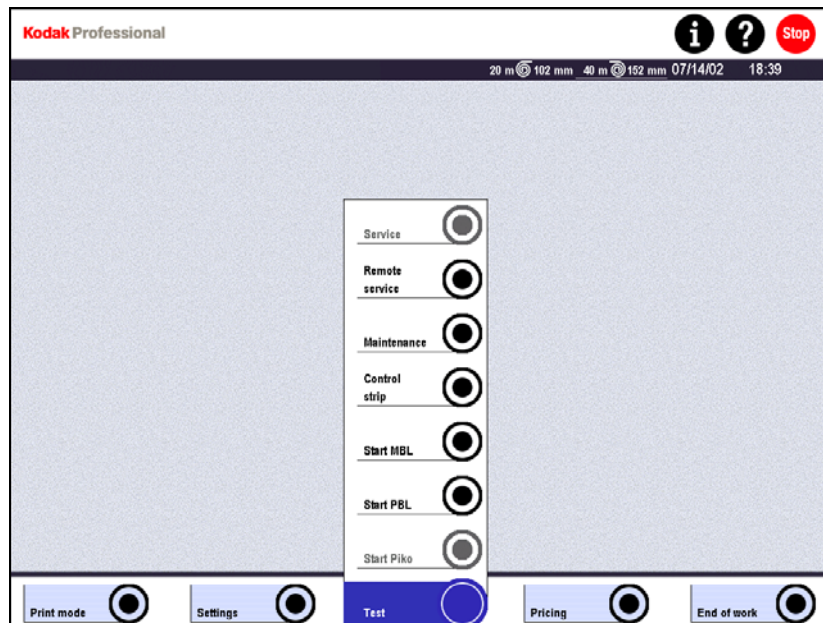
1. Touch:
   - **Test**
   - **Start PBL**
2. Select the paper configuration for which the PBL test is to be printed.
3. Touch **PBL** to print the test.
4. Enter in the next screen:
   - **Emulsion no.** (only for information, not assessed)
   - **Tolerance**: Step width 0.1 mm
     Possible input of the manually measured deviation of the paper from the coded width (useful for border prints).
5. Enable / disable **with Laser point**.
6. Touch **Start**.

You can use the **Settings / Machine settings / Printer** menu to set up how often the automatic PBL should be repeated if the values are out of tolerance. The number of retries can be from 1 to 10. See *Printer Settings* in Chapter 4.

PBL Test with Laser Point

The laser point is used to set the exposure levels required to produce the desired D-max value of the paper being tested.

NOTE: You can press [Alt] + [F1] to set the D-max for a paper. The PapersData dialog box appears.
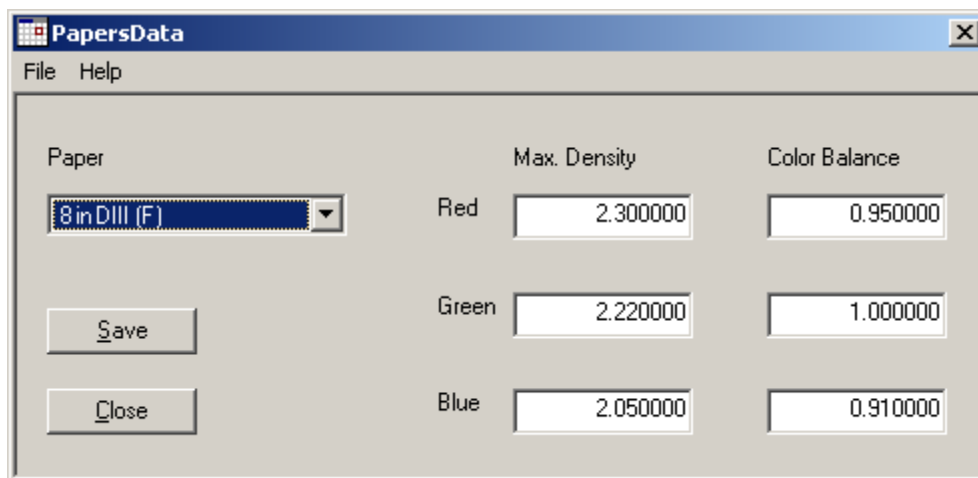
1. Select the desired paper from the drop-down list and adjust the "Max. Density" and "Color Balance" as needed. Click **Save**, and then **Close**.

    The values shown above are for KODAK PROFESSIONAL Digital III Color Paper. Different values will be required for new paper types as they are introduced.

2. Enable the box **with Laser point**.

    Upon first calibration of a paper, the PBL is automatically printed with laser point if the cassette code indicates that a paper is used for the first time.

Printing an MBL Test

When it is necessary to print an MBL test, follow these instructions.
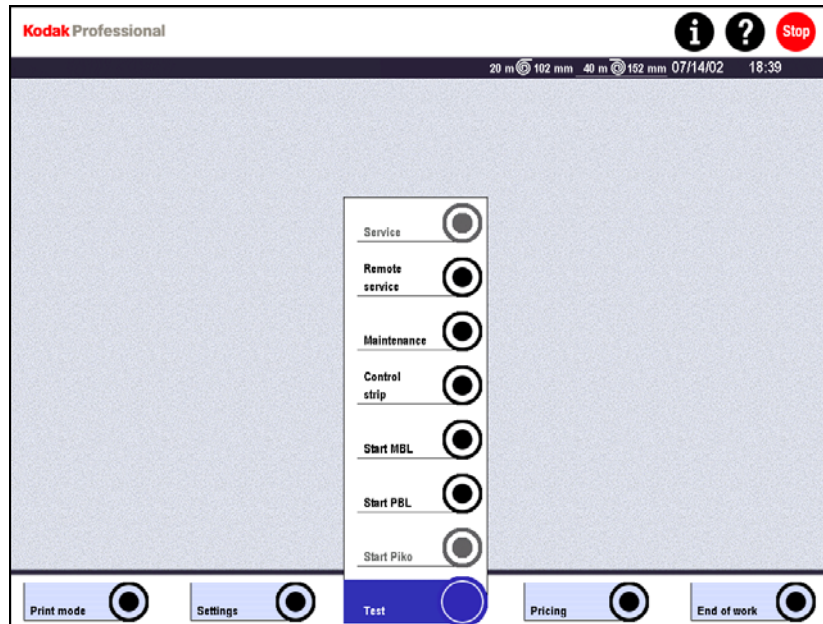
Touch:

- **Test**

- **Start MBL**

An Info screen opens during the test.

If the master paper is not inserted when an MBL is started, you are prompted to insert the master paper.

You can use the **Settings / Machine settings / Printer** menu to set up how often the automatic MBL should be repeated if the values are out of tolerance. The number of retries can be from 1 to 10. See *Printer Settings* in Chapter 4.

Procedure for the First Machine Operation or After New Software Installation

1. Use the predefined paper configurations or set up configurations as required. See *Paper Configurations* in Chapter 4.

2. Define the master paper. (This is the paper style most frequently used in the lab.) Touch **Settings / Machine settings / Printer**.

   IMPORTANT: *Another paper might be entered as the master. After a new software installation or data transmission from a previous version, the first PBL defines the master paper by default. If the master paper is changed, an MBL will be printed automatically.*

3. Print a PBL calibration.

   - The PBL MUST be printed on the master paper; this is the most frequently used paper in the lab. It is used for the MBL.

   - Enable **with Laser point**.

4. Print an MBL (if this was not done automatically as described above).

5. Print a PBL for all other paper styles to be used. This should be printed immediately after the MBL is printed, because the conditions for the printer and paper processor during these tests should be the same. The PBL is automatically printed with laser point if the cassette code indicates that a paper is used for the first time.

6. The printer is now calibrated for all paper styles. You can now start the production process.

7. After the PBL has been printed for all paper types, make a database backup so that the values can be loaded back into the equipment, if needed. See *Save/Load Settings and Configurations* in Chapter 4.

Daily Calibration with the MBL

Print the MBL directly after system startup (as soon as the chemicals have reached their nominal temperatures) and repeat once or twice during the day.

For an MBL, the master paper must always be inserted. If an Auto-MBL is to be printed after system startup, you must insert the master paper the night before.

The MBL calibrates the master paper again and all other paper styles are adapted according to the master correction.

In the following print operation, the MBL is the means to keeping the production stable and uniform. This provides consistent, every day compensation for chemical fluctuations and/or changes in the paper process.

- Before running a PBL on a paper (for example, because of a new emulsion) perform an MBL on the master paper. In other words, only print a PBL in a calibrated system.
- Perform an MBL with the old emulsion if the emulsion is still available.
- If there were changes in the master paper emulsion, perform a PBL without laser point.

Daily Calibration without the MBL

NOTE: Daily calibration without the MBL is the exception.

For the respective paper that is needed, a PBL is printed or repeated, if necessary. This can always be a PBL without new laser point calibration (with the exception of the first time).

Daily calibration without the MBL is possible:

- When using paper styles at the same time that are quite different (for example, paper styles of different manufacturers). In this case, the MBL corrections cannot show exactly the same effect for all papers.
- Only very few paper channels are used.
- If the required conditions for working with the MBL cannot be met.

Calibration of New Paper, Emulsion Changes, or Correction of a Paper Channel (Not Master Paper)

1. Print an MBL.
   This provides for a calibrated condition of the system.
2. Print the PBL right after the MBL:

   - With laser point for new paper other than the master paper
     or
   - Without laser point if there was an emulsion change only

Calibration of New Paper, Emulsion Changes (Master Paper)

1. Print the MBL on the previous (old) emulsion.
   This provides for a calibrated condition of the system.
2. Immediately print a PBL without laser point on the new master paper.

NOTE: If the old emulsion was used up before you could print an MBL you can only start the calibration of the new paper with a PBL calibration. However, in this case be sure that the equipment is calibrated. Otherwise, there may be a deviation between the master paper and all other papers. If this is the case, perform a complete new calibration.

Completion of the New Calibration

If there is too much deviation in the paper styles, a new calibration is recommended.

1. Print an MBL on master paper.
2. Immediately print a PBL without laser point for all papers other than the master paper.

After manipulations on the laser module or after changing the chemicals, a new calibration is recommended:

1. Print a PBL with laser point on the master paper.
2. Print an MBL.
3. Immediately print a PBL with laser point for all papers other than the master paper.

Scanner Calibration PIKO

The scanner pixel correction (PIKO) process:

- Calibrates the light path of the lamp up to the CCD
- Balances the pixel sensitivity of the CCD for each pixel
- Defines the illumination strength (if the lamp is replaced, for example – this influences the lamp, filter, mirror box, and film mask)
- Defines the crop to be used for the film mask (illumination on the CCD chip)

The system automatically performs a PIKO:

- During system startup (because any film mask could be inserted when the system is started)
- Whenever you change the film mask
- Whenever there are considerable fluctuations in light and temperature (light path or CCD)

IMPORTANT: Do not change the film mask during a PIKO. This interrupts the crop definition process, resulting in incorrectly exposed prints (brightness, colors) and possible prints with white borders.

After a successful PIKO, the status line shows the message **Terminate Scanner calibration**.

You can also start PIKO manually. Normally, this is only required if you receive a message that the automatic PIKO was not terminated successfully. Otherwise, the prints may get white borders.

To start PIKO manually:

1. Check that the film mask is inserted and empty.
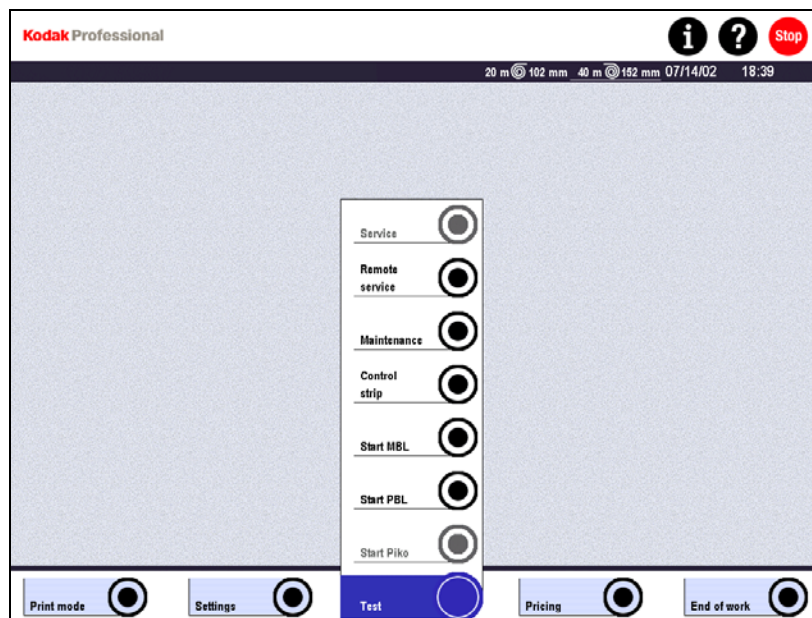
2. Touch:
   - **Test**
   - **Start PIKO**

If the system automatically initiates PIKO during production, check the condition of the print lamp.

Testing the Paper Processor

To maintain or restore optimum processing quality, the chemicals of the paper processor should be checked every day by means of the pre-exposed control strips.

Prerequisites:

- The following working temperatures must have been reached:
  - − DEV   40 °C
  - − BX   38 °C
  - − STB   37 °C
  - − Dryer   65 °C
- There is no order in process.
- Use KODAK PROFESSIONAL Pro Strips for Process RA-4 (Catalog No. 129 8587).

1. Check that the processing temperatures have been reached.
2. Unlatch and remove the control strip box (1) from the lane distributor.
3. In the darkroom, insert a chemical control strip into the control strip box.
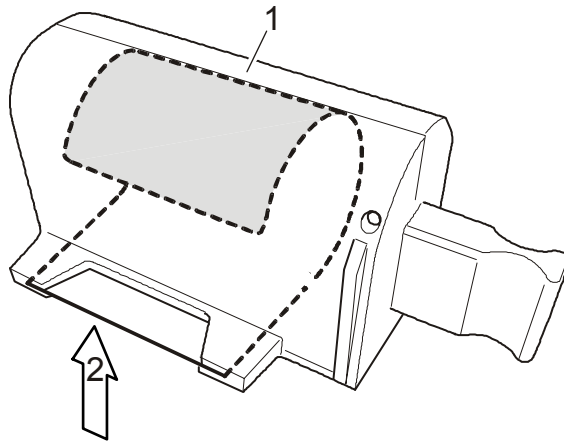
1   Control strip box
2   Emulsion side / photographic layer

- With the handle of the control strip box to the right and the emulsion side (2) down, first insert the trailing end of the control strip (end that comes out last goes in first). The end of the control strip should be flush to the end of the box.
- If the control strip was accidentally inserted upside down (the emulsion is on top), the processed control strip usually shows typical dirt marks.

4. Touch:

    - **Test**
    - **Control strip**
    - **Chemical control strip**

    You receive a prompt to insert the chemical control strip.
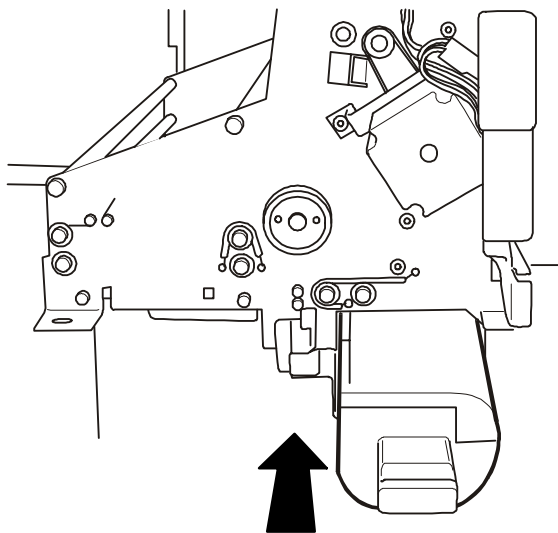
5. Place the control strip box in the holder provided for this in the lower area of the lane distributor.
6. Close the printer door.
7. Touch:

    - **Continue** (to transport the control strip into the paper processor), or
    - **Cancel** (to terminate the operation)

8. Evaluate the process control strips.

Chapter 6 Production

Contents

Preparing the Equipment for Different Orders

Preparing the Paper Magazine

Adjusting the Paper Width

Paper widths in the paper magazines are:

- Left: 82–210 mm (3.25–8.25 in.)
- Right: 82–305 mm (3.25–12 in.)

Adjust the paper magazine to the width of the paper in use so that the paper can be transported correctly. Do these steps to make this adjustment:

1. Release the latches, open the empty magazine, and remove the winding core.
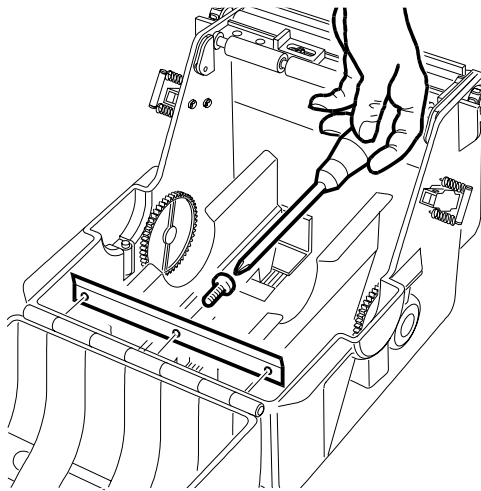
2. Remove the screw for the paper guide holding plate (use a Phillips screwdriver).
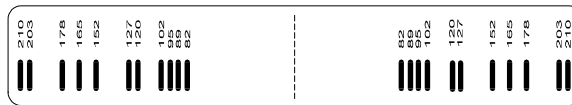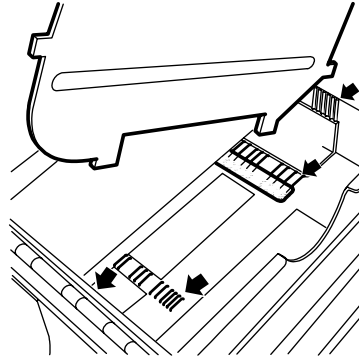
3. Insert the four fingers of the paper guides into the notches that correspond to the paper width. (The notches are labeled in millimeters). Check that all four fingers are seated in the correct notch.

NOTE: The shape of the notches makes it easier to align the fingers with the correct position.
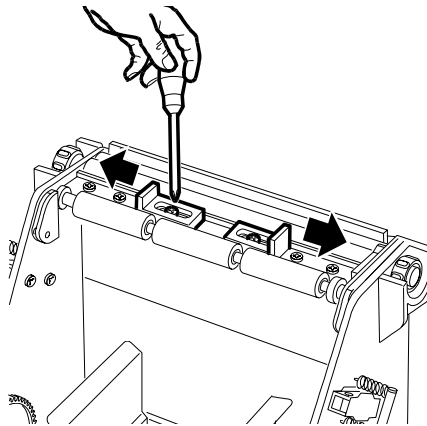
4. Loosen the screws of the magazine exit guides.
5. Set the magazine exit guides to the width of the paper. Align the guides with the line indicators (labeled in millimeters).
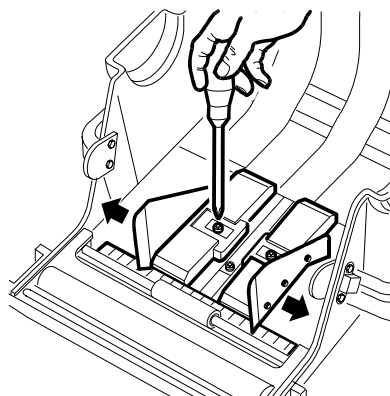
6. Adjust the guides in the other section of the magazine in the same way.

NOTE: If several paper types are used, we recommend preparing several magazines for each paper width.

Installing Paper

IMPORTANT: *Photographic paper must always be stored in a cool and dry place. The best storage temperature is between 2°C and 10°C (36°F and 50°F).*

1. Take the paper out of the cool storage at least 24 hours before use to let any condensation on the paper dry.
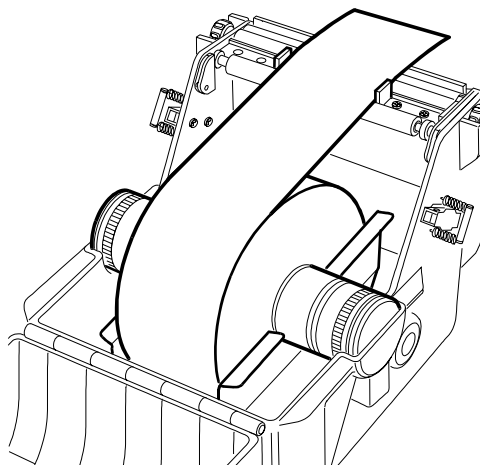
2. In the darkroom, take the paper roll out of the package and push the core through the roll.

3. While observing the winding direction, put the paper in the magazine.

4. Push the paper tip through the two brackets on the magazine outlet.

5. Pull the paper slightly out of the magazine. Hold the paper with one hand and close the magazine with the other hand.

6. To prevent pre-exposure of the paper tip, return the paper to the magazine. Rotate one of the gears located on the side of the magazine opening until the magazine latch locks.

Coding the Paper Magazine

White slide tabs located on the paper magazine let you code the width (1–4) and surface (5–6) of the paper in use. Whenever you change paper, set the slide tabs accordingly. The meaning of the coding is described below.

□ Slide tab closed (corresponds to switch setting ⊠ on the SRP 30 screen)

■ Slide tab open (corresponds to switch setting □ on the SRP 30 screen)

Paper Width		Width Indicators				Surface Indicators	
		1	2	3	4	5	6
3.25 inch	(82 mm)	■	□	■	□		
3.50 inch	(89 mm)	■	□	■	■		
3.75 inch	(95 mm)	□	■	■	■		
4.00 inch	(102 mm)	■	■	■	□		
4.75 inch	(120 mm)	■	■	□	■	GLOSSY	■□
5.00 inch	(127 mm)	■	□	□	■	MATTE	■■
6.00 inch	(152 mm)	■	□	□	□	CUSTOM1	□■
6.50 inch	(165 mm)	□	■	■	□	CUSTOM2	□□
7.00 inch	(178 mm)	□	■	□	■		
8.00 inch	(203 mm)	□	□	■	■		
8.25 inch	(210 mm)	□	■	□	□		
8.50 inch	(216 mm)	□	□	□	□		
10.0 inch	(254 mm)	□	□	□	■		
11.0 inch	(279 mm)	□	□	■	□		
12.0 inch	(305 mm)	■	■	□	□		

NOTE: The table shows the Kodak standard. If required, you can define a different allocation of the switches to paper widths and surfaces. Each switch combination can only be used once.

When the magazine is in place, the system automatically recognizes the paper width and the paper surface and offers them for selection in the print menus.

For more information, see *Defining Surfaces*, *Defining Paper Settings*, and *Paper Configurations* in Chapter 4.
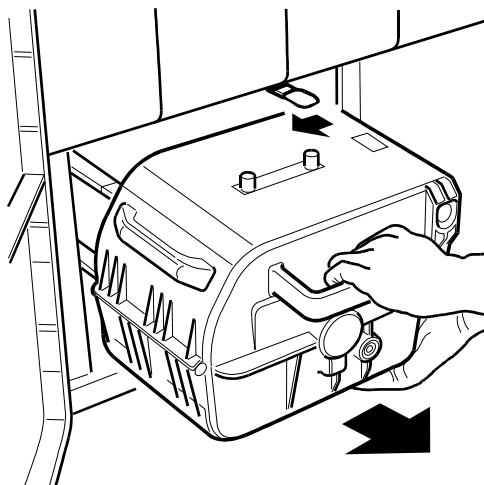
Changing the Paper Magazine

IMPORTANT: *Always wait 30 seconds after the last print procedure before removing the magazine to let the paper rewind into the magazine.*

The LED in front of the magazine indicates when you may remove the magazine:

Green = yes

Red = no

1. Open the printer door.
2. Remove the paper magazine:
   a. Push the locking lever to the side.
   b. Pull out the paper magazine.
3. Insert the paper magazine:
   a. Put the paper magazine in the guide rails and slowly push it in until it locks.

CAUTION: **Excessive insertion force on the paper magazine can cause damage to the drive gear.**

   b. Close the printer door.
4. Reply to the check of the paper cut.

IMPORTANT: *To avoid paper transport malfunctions due to an incorrectly cut paper tip, the prompt should be confirmed in the following cases:*

- *When a new paper roll is inserted*
- *When a paper jam has occurred*

If the paper is to be cut, the machine cuts the paper tip, turns it 180° and transports it to the print engine.

IMPORTANT: *Whenever a magazine is inserted, the system checks the paper length by moving the paper to the cutter and back. Make certain that the middle printer door remains closed during this procedure to prevent the paper from becoming pre-exposed.*

The paper is ready for use when the indicator LED (visible through the gap between the printer door and outer panel) changes from red to green.

Changing the Mirror Box for 120 Films

You must mount a different mirror box before you can scan 120 films.
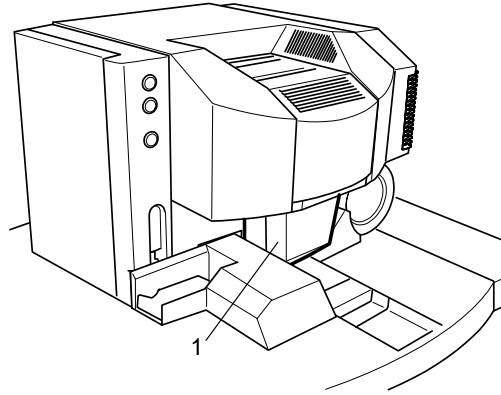
1. Hold the mirror box (1) on the sides with both hands and pull it out towards you.
2. Place the new mirror box in the guide rails and push it in towards the lamp house until it locks in.

Changing the Film Mask

CAUTION: **In the Autoprint mode, do not remove the film mask until the film strip has been completely scanned and ejected into the film box below the scanner.**

In the Manual Positioning mode, touch the Eject button to eject the film strip or to center smaller film pieces (<3 frames) so that they won't be damaged when the film mask is removed.

When the film mask is changed, the pixel correction (PIKO) is performed automatically. Do not remove the film mask while PIKO is performed.
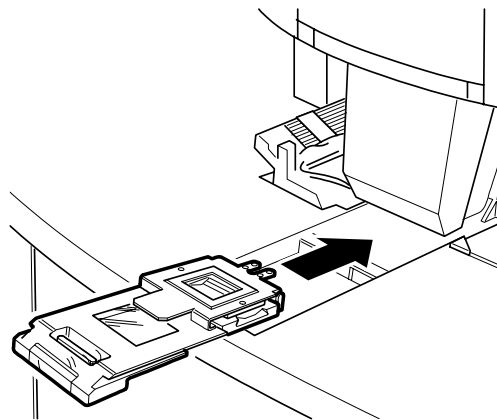
To remove the film mask, pull it to the front and lift it up and out of the guide.

To install the film mask, place it in the guide and push in until it locks in place.

APS Film

APS Film Handling

CAUTION: When handling APS film:

Do not fold the film because the system will not be able to read the magnetic code.

Do not expose the film to strong magnetic fields because they can erase the magnetic code.

Do not splice the film in the area of the magnetic tracks because the tracks can come off when the splice is removed.

APS Film Cartridge

The APS film cartridge is smaller than the 35 mm cartridge. After processing, the APS film is wound back into the cartridge where it is stored.

Film status is indicated on the cartridge as:

①   Unexposed

②   Partially exposed

③   Fully exposed but not processed

④   Processed film

⑤   IPI: Irreversible Process Indicator
(pressed in if the film has been processed)
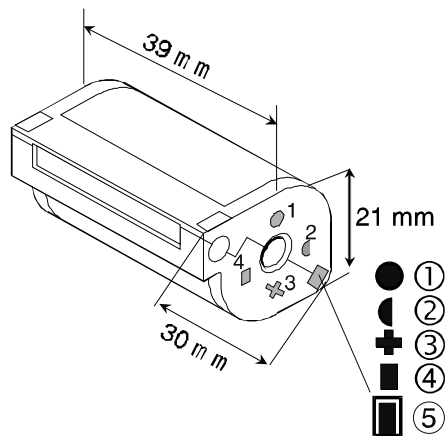
Order Handling

Typical Order Tracking

Orders are tracked with the use of Twin Check labels that contain the order number. Matching labels are placed on the envelope and on the film.

The order number may also be printed on the back of the prints along with other information so that the allocation of the prints to the corresponding film order is simplified.

Price labels can be printed with the optional Pricing and Label printer accessory.

Prerequisites

Before beginning production, check that:

- All equipment and user-specific settings are completed. (See Chapter 4, *Settings.*)
- All configurations required for the production are created. (See Chapter 4, *Settings.*)
- All maintenance procedures required prior to production start are completed. (See Chapter 8, *Maintenance.*)
- The equipment is prepared for the first order:
  - Correct paper is installed in the paper magazine. (See *Installing Paper* on Page 6-5.)
  - Paper magazine is correctly coded. (See *Coding the Paper Magazine* on Page 6-6.)
  - Matching film mask is inserted. (See *Changing the Film Mask* on Page 6-1.)
  - Order sorter is in the working position. (See *End of Order (Automatic or Manual)* on Page 6-13.)
- The equipment is switched on and ready to operate. (See Chapter 4, *Settings.*)
- The operator is logged in. (See Chapter 4, *Settings.*)
- The paper is calibrated. (See Chapter 5, *Tests.*)

Inserting Film into the Film Feeder

Push the film strip between the film feeder guides with the emulsion side turned down. The film feeder detects the film and pulls it in automatically. (The width of the film feeder guides depends on the film mask installed. The film feeder adjusts the width automatically.)

Film Feeder
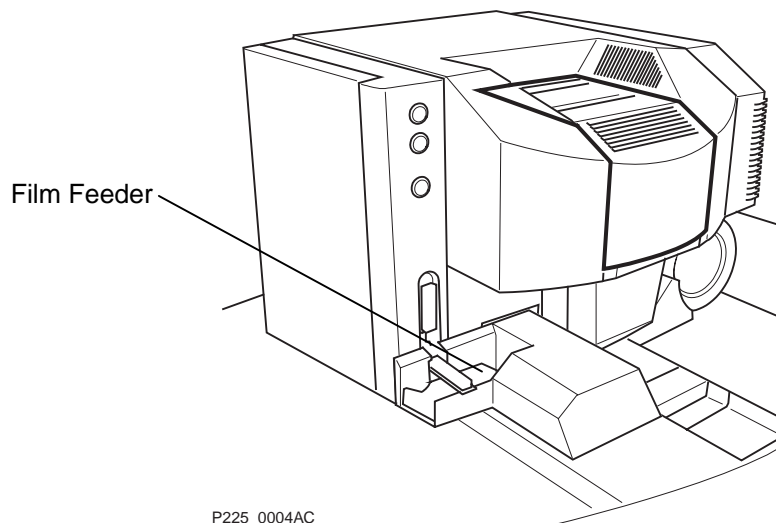
P225_0004AC

The inserted films are deposited in the film box at the bottom after printing so that the next film can be inserted while the current film or film strip is being printed.

Starting the Order

The manner in which a print order starts depends on the print mode.

In these print modes...	The print order starts...
Autoprint, Reorder	When you insert a film strip into the film feeder
Manual Positioning, Slide Print	When you insert the film mask or slide mask
File Print	When you touch the **Start printing** button
Network Order	When a remote workstation transmits orders to the printer

NOTE: If film is inserted in the Reorder print mode and no Reorder list has been created, an error message appears and the film is ejected.

Order Number (Automatic or Manual)

You can assign order numbers either automatically or manually, depending on the status of the **Order No.** parameter in **Settings / Machine settings / Other**. (See Chapter 4.)
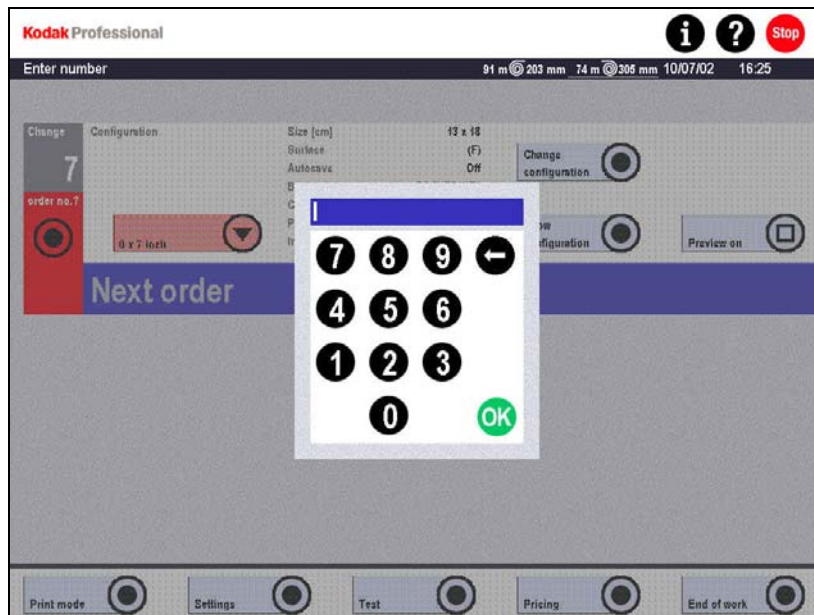
Manual Order Numbering

The first order always starts with **1**. (Order numbers are reset to 1 after a system reset or shutdown.)

The order number appears on every print screen.

You can change the order number:

- If the **Change order no.?** button appears under the order number
- Until a film strip is pulled into the film feeder in Autoprint or Reorder print modes
- Until the first print or slide has been calculated in Manual Positioning or Slide Print modes
- Until you touch **Start printing** (with or without Preview) to load image data from a data carrier in File Print mode

To change the order number:

1. Touch the **Change Order no.?** button.
2. Enter a number and touch **OK**.

   If the number already exists, the system displays an inquiry as to whether to overwrite the order. The entered number is incremented for each order that follows.

Automatic Order Numbering

The first order always starts with **1**. (Order numbers are reset to 1 after a system reset or shutdown.)

The entered number is automatically incremented for each order that follows. The number cannot be changed.

End of Order (Automatic or Manual)

Orders are terminated by **End of order**. The sorter moves so that the prints of the orders can be put in different bins.

A new order begins when a frame or slide is scanned or a digital image file is loaded after end of order. This new order must receive a new order number either automatically or manually.

The sorter moves on without an end of order if an order exceeds the capacity of one bin.

Splices in the paper rolls are cut separately and the corresponding pieces of paper are deposited in the print order stacker.

An automatic end of order occurs when:

- The film drive moves a film strip out when in Autoprint mode.
- You change the print mode.
- You change the film mask.
- You press the **Stop** key on the main computer.
- You touch the red **Stop** button on the screen.

You can initiate a manual end of order by touching the **End of order** button. A manual end of order is required:

- In the Manual Positioning and Slide Print modes
- If the **Automatic end of order** function has been disabled
- For film strips shorter than the **Film length** parameter during or after the handling of the last strip

See *Other Settings* in Chapter 4 for information on:

- Enabling/disabling the **Automatic end of order** function
- Setting the **Film length** parameter for the automatic end of order (400 mm are preset)

NOTE: All information needed for pricing is saved for each completed order.

Print Modes Overview
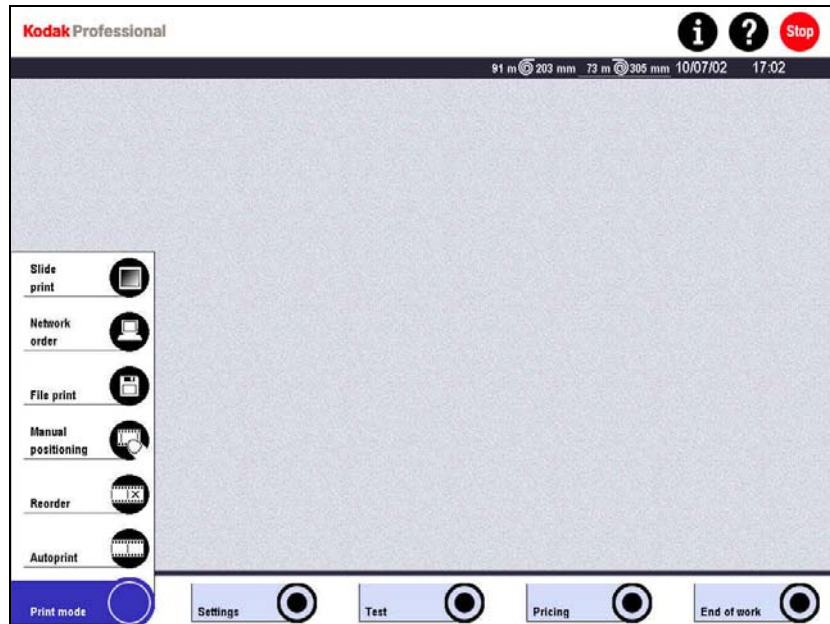
You can use only one print mode at a time.

When changing to another print mode, the current configuration remains set. However, when changing to Autoprint, the standard configuration for the current film size is set.

Normal Print Modes

In all normal print modes, you work sequentially (in the order corresponding to the frames on the film).

Normal print modes consist of:

- Autoprint – for automatic printing of first orders with or without Preview
- Reorder – for automatic printing of reorders with or without Preview
- Manual Positioning – for films without DX code, or single frames with Preview
- Slide Print – for frame slides with Preview

Digital Print Modes

- File Print – for image files (jpg, bmp, tif) loaded from digital media and printed with or without Preview. Digital media can be Floppy Disk, CD-ROM, ZIP, or PCMCIA card.
- Network Orders – for digital orders prepared on a remote workstation and sent to the SRP 30 Laser Printer by way of a network.

IMPORTANT: *To optimize network order throughput, set the **Autom. printing** parameter in **Settings / Machine settings / Network orders** to **Off**.*

Using Print Configurations

Current Configuration Screen

This screen contains details about the current configuration and associated sub-configurations, as well as all other settings. This is a view-only screen.

Touch **Show configuration** in the selected print mode screen. (In some print modes, you first have to touch **Change configuration** to see the button for **Show configuration**.)
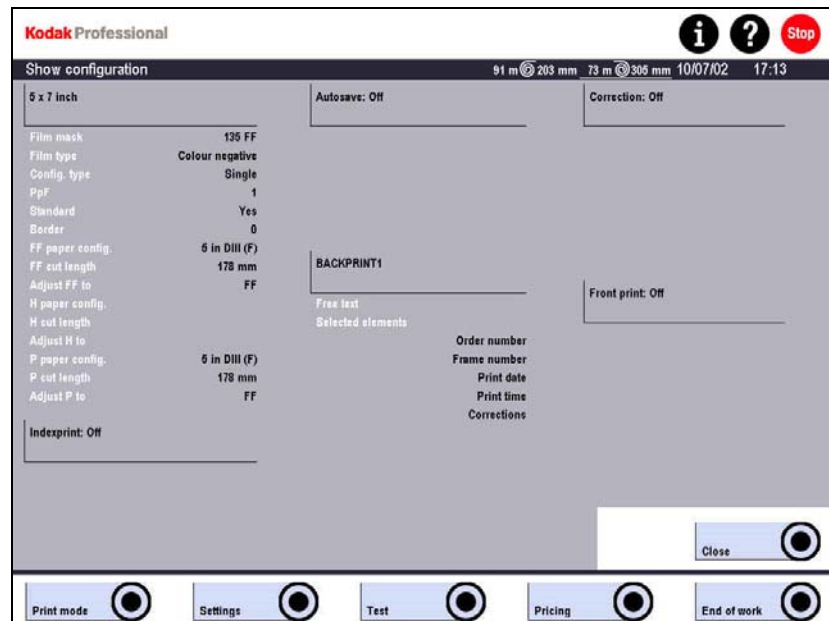
Changing the Order Configuration

To change the configuration for an entire order, you must make the changes before you insert the film. You can make edits to the existing configuration or you can choose a different configuration.

NOTE: You cannot change the configuration of an order that is being processed.

Editing the Current Configuration

1. Before the film is inserted, touch **Change Config.** in the selected print mode screen.
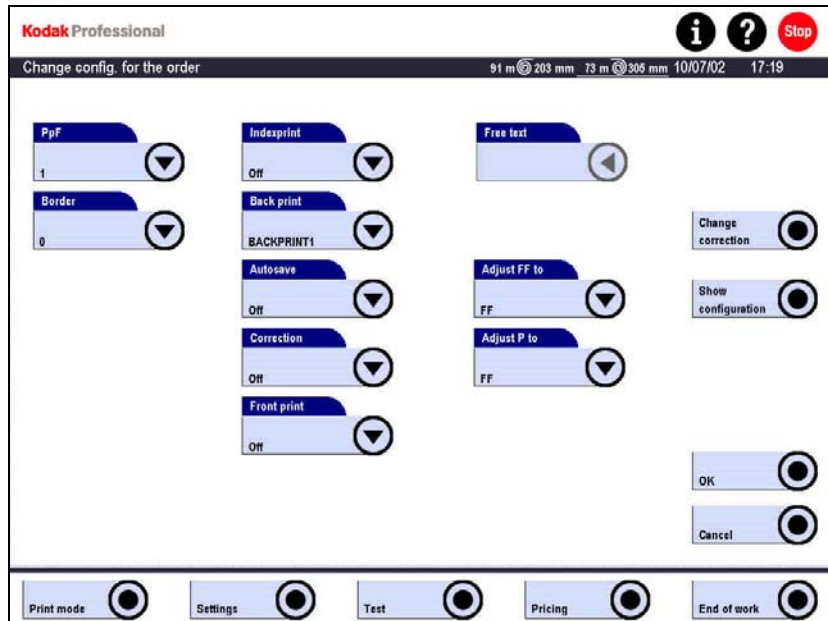
2. Change the settings as desired and touch **OK**. (See Chapter 4 for descriptions of these settings.)

The new settings are applied to the current order.

Selecting a New Order Configuration

1. In the selected print mode screen, touch the button under the **Configuration** heading. (The position of this button varies depending on the print mode screen.)

   The list contains all order configurations defined for the inserted film mask. Configurations that can be used for printing on the inserted paper are marked in the list by an asterisk (*). Package configurations are marked by a P.

2. Touch the desired configuration and touch **OK**.

Changing the Order Number

The order number can only be changed if the **Order no.** parameter is set to **Manual** in **Settings / Machine settings / Other**. See *Other Settings* in Chapter 4 for more information.
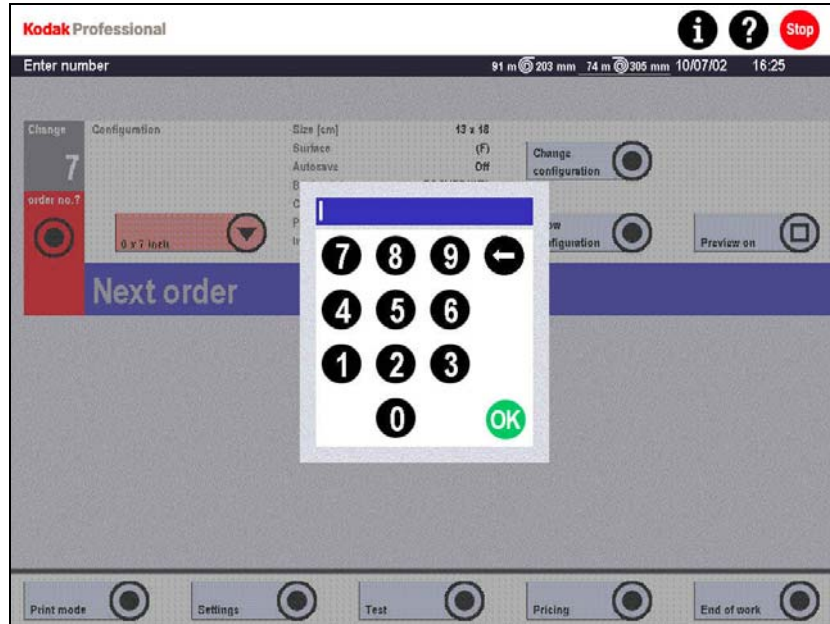
1. From the selected print mode screen, touch the **Change order no.?** button.
2. Use the numeric keypad to enter the order number and touch **OK**.

Printing

You can print orders with or without Preview, except for Manual Positioning and Slide Print modes, which always require Preview.

If Preview is disabled, images print as soon as they are acquired by the system. No further operator intervention is required.

If Preview is enabled, a variety of functions are offered for image correction and image enhancement. (See *Using Preview* on Page 6-42.) You can also save edited images on digital media.

NOTE: The order number is assigned automatically as each processed film, each Reorder list, and each composition of file prints or slide prints is handled as one order.

Autoprint Print Mode

Use this print mode to print images from film.

1. Touch:
   - **Print mode**
   - **Autoprint**
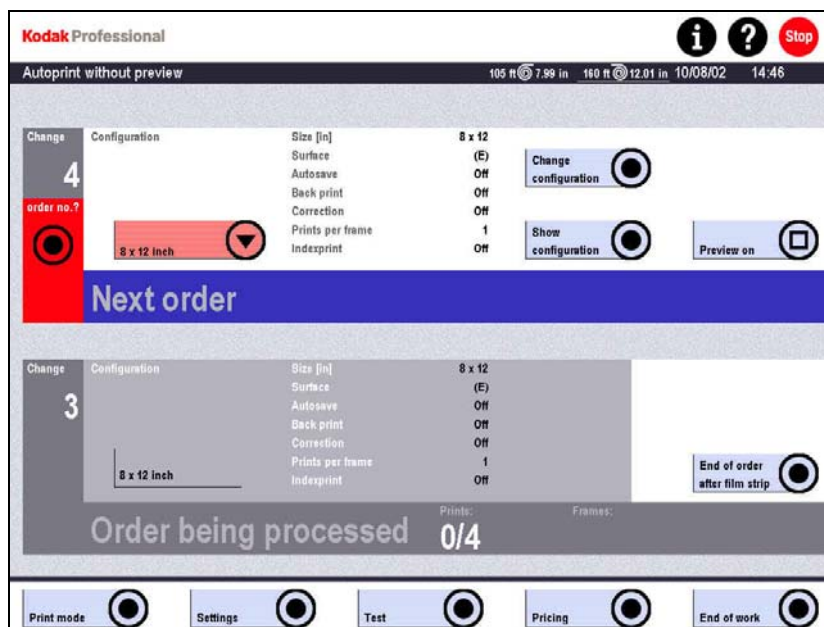
2. Touch the **Configuration** button and select an order configuration from the list

   or

   Touch **Change configuration** and change the settings of the currently selected order configuration.

NOTE: To view details of the current configuration, touch **Show Configuration**.

3. Touch **Change order no.?** if you want to enter a new order number (and if the **Order no.** parameter in **Settings / Machine settings / Other** is set to **Manual**).

4. Enable or disable **Preview**.

5. To begin the printing process, insert the film strip into the film feeder, emulsion side down.

   If Preview is enabled, the **Preview** screen appears. Go to Step 6.

   If Preview is disabled, the order begins to process and the status is displayed at the bottom of the screen. Go to Step 10.

NOTE: It is not possible to switch to Autoprint with Preview while an order is processing.

The screen displays up to four Preview images at the same time. The right-most image is the current image.

6. To delete the current image without printing, touch **Skip**.

7. To make corrections to the current image, touch the blue **Stop** button.

IMPORTANT: *Do not confuse the blue* **Stop** *button with the red* **Stop** *button (top of the screen) that is used for resetting the printer.*
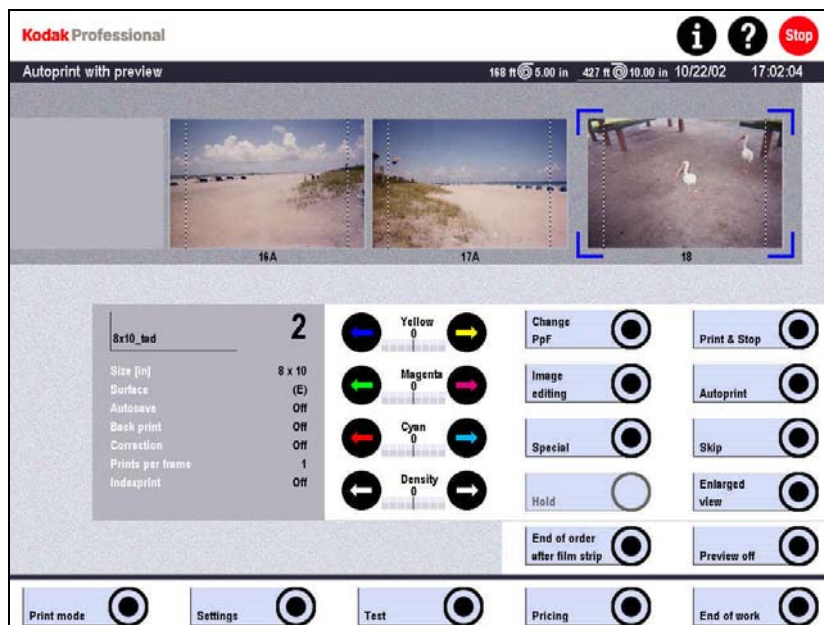
8. Make any necessary corrections to the image. (See *Using Preview* on Page 6-42 for more information.)

9. Touch **Autoprint** to continue the printing process. Continue previewing and editing images in the film strip.

10. Insert any additional film strips for the order.

11. If necessary, touch **End of order after film strip**.

    This button only appears:

      - if **Automatic end of order** has been disabled
      - for short film strips (< 400 mm)

NOTE: In Autoprint with Preview, the next order can only be processed after end of order has been set for the current film.

Reorder Mode

You can use this print mode only for:

- DX coded film or film strips
- 135 color negatives and APS films

1. Touch:
    - **Print mode**
    - **Reorder**
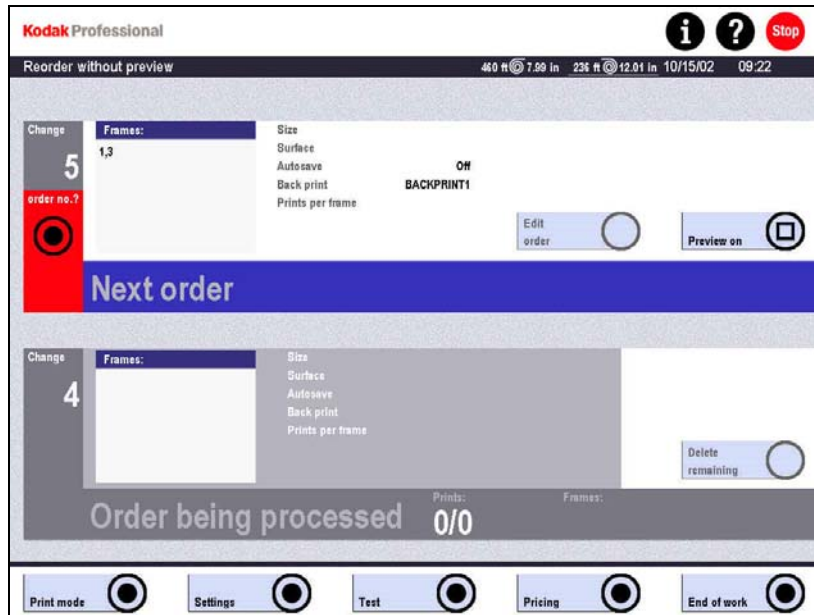
2. Enable or disable **Preview**.
3. Touch **Edit order**.
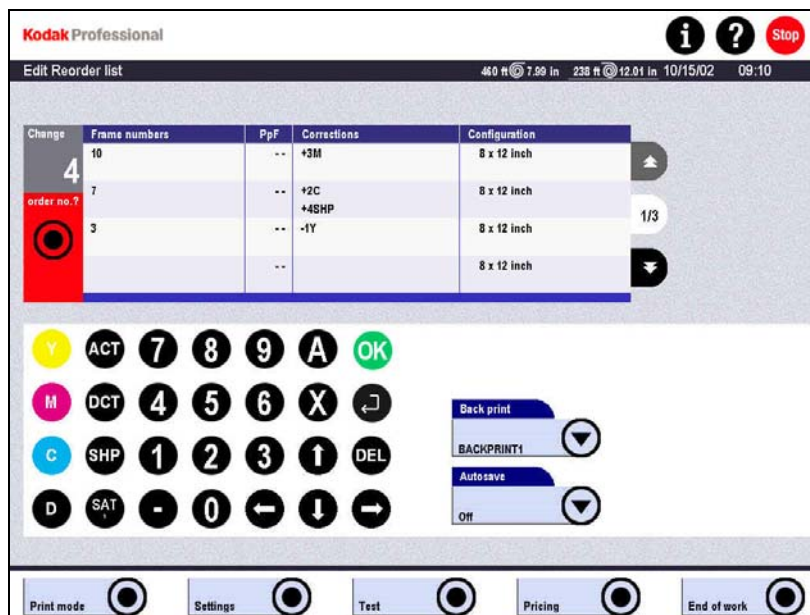
4. Create a reorder list for each film strip or APS film cartridge. Use the touch screen or **Reorder** keyboard to enter the **Frame number**, **PpF** (prints per frame), **Corrections**, and **Configuration** for each frame in the list.

   NOTES:

   - The default value for the **PpF** field is 1, which is represented by **--**. Make an entry only if you want more than one print of the frame.

   - Make corrections by first touching the appropriate correction button (first two columns of the **Reorder** keyboard), then entering a positive or negative value. You can enter multiple corrections in the field.

   - Touch the arrow buttons to move between fields.

5. Touch **Autosave** and **Backprint** for the order because these settings are ignored in the selected order configuration. The selection boxes show the settings of the configuration indicated for the first frame.

6. Touch **OK**.
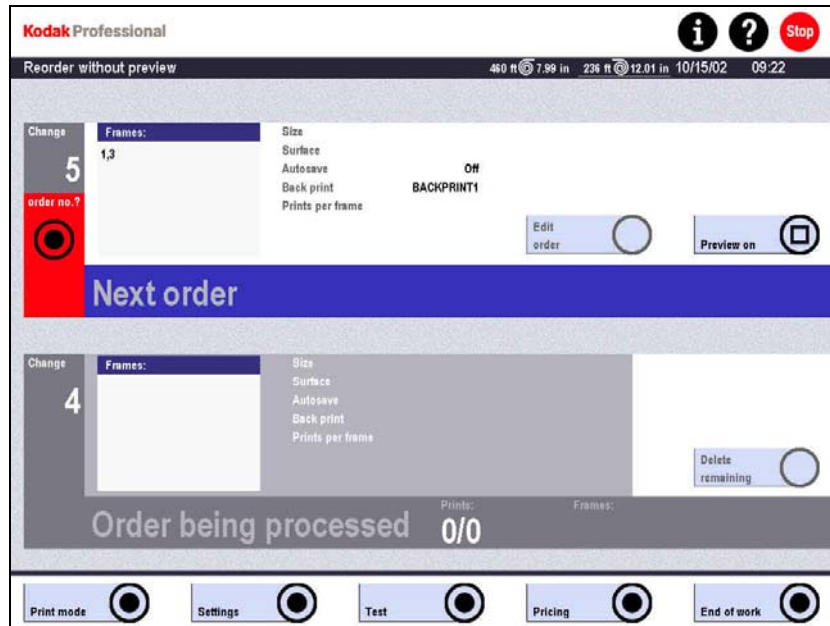
For APS films, the system checks to see if a list already exists for the entered film identification number (FID):

- If not, the list is saved.
- If a list already exists, a pop-up window offers the **Overwrite** and **Cancel** functions.

7. To begin the printing process, insert the film strip into the film feeder, emulsion side down. All important data for the order is shown on the screen.

   If Preview is enabled, the **Preview** screen appears. Go to Step 8.

   If Preview is disabled, the order begins to process and the status is displayed at the bottom of the screen. Go to Step 12.

NOTE: It is not possible to switch to Reorder with Preview while an order is processing.

The screen displays up to four Preview images at the same time. The right-most image is the current image.

8. To delete the current image without printing, touch **Skip**.

9. To make corrections to the current image, touch the blue **Stop** button.

IMPORTANT: *Do not confuse the blue* **Stop** *button with the red* **Stop** *button (top of the screen) that is used for resetting the printer.*

10. Make any necessary corrections to the image. (See *Using Preview* on Page 6-42 for more information.)

11. Touch **Autoprint** to continue the printing process. Continue previewing and editing images in the film strip.

12. Insert any additional film strips for the order.

13. Touch **Next Order** to enter a list for the next order. (If you are in Preview mode, touch **Preview off** first.)

   - For 135 film, you can enter a maximum of two reorder lists at one time.

   - For APS film, the number of reorder lists is limited only by the available memory if the film identification number (FID) is indicated.

NOTE: While the current order is running, DX numbers not yet scanned are shown in the **Frames** field. The current order remains active until all numbers have been scanned and printed. You can use **Delete remaining** to delete the remaining DX numbers before they print.

The end of order is set automatically after all DX numbers have been scanned and printed. Then the **Reorder** screen appears again.

Manual Positioning Mode

Use Manual Positioning for all orders that cannot be handled in the Autoprint or Reorder modes, such as:

- Film strips
  - Without DX code
  - DX code illegible (space detection not possible in TFS / APL)
- Film pieces with one or two frames that can't be inserted in the film feeder

NOTE: Manual Positioning always uses Preview. Index Print is not possible with Manual Positioning.

1. Touch:
   - **Print mode**
   - **Manual positioning**
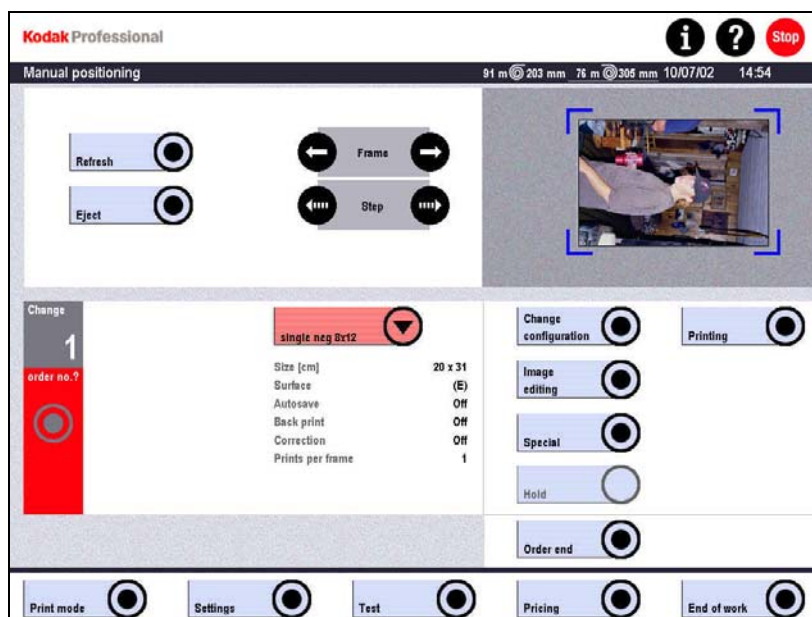
2. If required, touch **Change config.** to change the configuration temporarily for the whole order. (See *Using Print Configurations* on Page 6-15.)

3. To begin the printing process:

   a. Insert the film strip (more than two frames) into the film feeder, emulsion side down. The film strip is scanned and the first frame is displayed in Preview mode.

      Or

   b. For film pieces with one or two frames, pull out the film mask and insert the film piece, emulsion side down. Push in the film mask. The film is scanned and displayed in Preview mode.

   IMPORTANT: *While the pop-up message is open informing you that the Preview image is being calculated, do NOT remove the film mask.*
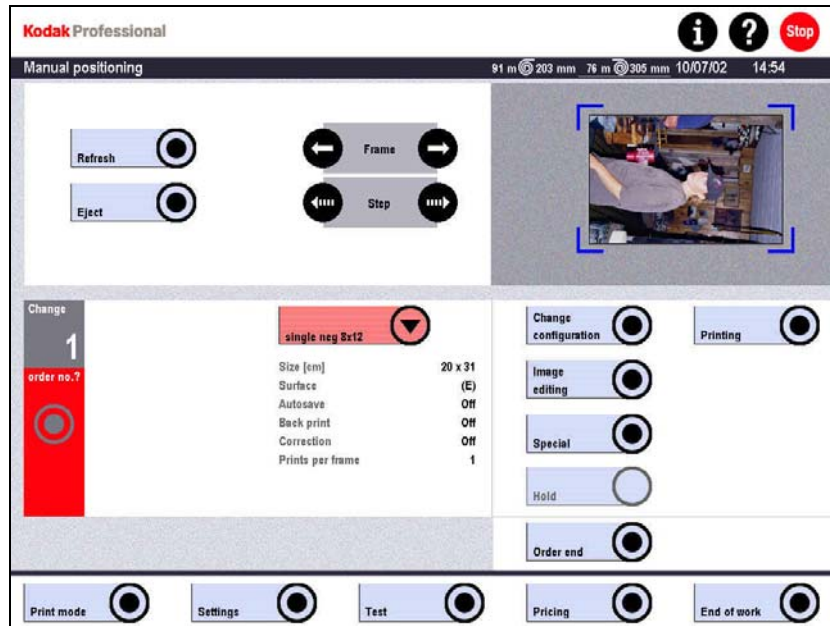
4. If the displayed frame is not the one you want, or is not in the exact position you want, you must position it manually.

- For film strips, touch **Frame** to move the film strip one frame at a time.

- For film pieces, touch **Step** to move the frame in small steps. Preview moves the outline of the frame accordingly to let you see the exact position.

5. Touch **Refresh**.

   The frame is scanned again and the Preview is refreshed.

6. Repeat the positioning and refreshing operation until you obtain the result you want.

7. If necessary, change the configuration for the current frame with **Change config.** If several configurations are mixed in an order, the data of the first configuration used applies for Autosave and Back Print for the whole order.

8. Make any necessary corrections to the image. (See *Using Preview* on Page 6-42 for more information.)

9. Touch **Print**.

   The frame is printed with all entered modifications.

10. Touch **Eject** to remove the film strip or film piece.

- Film strips are ejected into the film box below the scanner.

- Film pieces are moved to a position in which you can remove the film mask without damaging the film piece.

CAUTION: **If the printer is reset with a film piece (one or two frames) inserted in the film mask, the film piece might not be in a position for safe removal when the reset is complete. If you then remove the film mask, you risk damaging the film.**

- **Before initiating a manual reset, touch the Eject button and let the film piece move to a position in which you can safely pull out the film mask.**

- **If the printer resets automatically (when an error occurs, for example), DO NOT pull out the film mask. After the reset is complete, remove the lamp box. Then, with the film mask still in place, carefully remove the film piece.**

11. When the complete order has finished, touch **End of order**.

A manual end of order is always required for Manual Positioning because several film strips and film pieces can be combined to form an order, and the system cannot automatically determine which is the last one.

File Print Mode

Use File Print mode to print images from a digital source.

When working with digital input sources, remember:

- Only jpg, bmp, and uncompressed tif files can be processed.
- Digital cameras supply Gamma values between 1.8 and 2.2. The SRP 30 Laser Printer prints with a Gamma of 1.8.
- The maximum size of each file is 110 MB (tif, bmp; jpg unpacked). Larger files are not printed.
- The maximum size of each total order is 400 MB. Larger order files create handling problems.
- The print size should be adjusted to the aspect ratio (indicated by **.... x .... pixels**) of the image. Touch a suitable adjustment method. Otherwise, the error message **File print parameter range violation** will appear.
    - Fit image to paper
    - Fill print size
- The quality of the prints depends on the relationship between the resolution and the print size:

    Minimum   approx. 100 pixels per cm
                      approx. 200 pixels per inch

IMPORTANT: *For images created with ADOBE PHOTOSHOP:*
- *Save files only in tif, bmp or jpg formats.*
- *Use a Gamma value of 1.8.*
- *Convert CMYK (additive colors) to RGB (subtractive).*

dTFS (Only for File Print)

This function compensates for the different characteristics of digital cameras. Activate this function only if at least five exposures were made with the same camera. The exposures are put together to a series—similar to film—and the corrections are found for them.

IMPORTANT: *Do not use dTFS for the following conditions:*
- *for manipulated, artificially modified digital exposures*
- *for images created with graphic programs*
- *for images taken with different cameras*
- *for orders with fewer than five frames*

Record the following information when an order is received:

- Have the digital images been taken with different cameras?
- Have the images been created by the customer with a program such as ADOBE PHOTOSHOP?
- Have the digital images been edited with a program such as ADOBE PHOTOSHOP?

Printing from Digital Media

Image files loaded from digital media are combined in an order.

You can load image files from digital media or from an authorized directory of a workstation connected to the SRP 30 Laser Printer. (See *Digital Order Settings* in Chapter 4).

You can edit single images of the order on the SRP 30 Laser Printer and print immediately. Or you can save the selection list and print later.

1. Touch:

    - **Print mode**

    - **File print**

    When the screen opens, the defined standard configuration is automatically set.
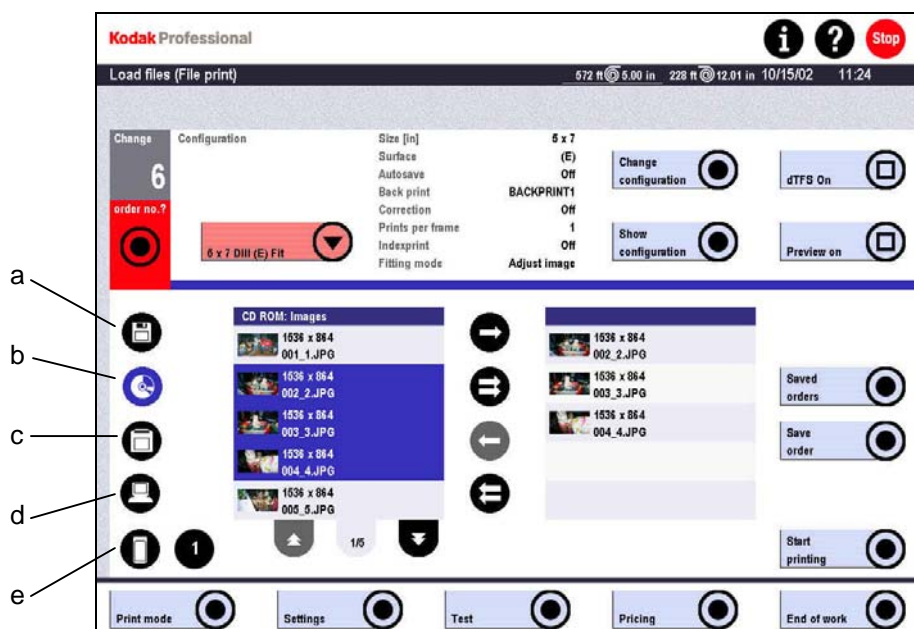
2. Touch the appropriate media symbol:
    a. Diskette
    b. CD-ROM
    c. ZIP disk
    d. Workstation directory
    e. PCMCIA (includes drives 1, 2, and 3)

    (Check that the storage medium is inserted into the appropriate drive, if applicable.)
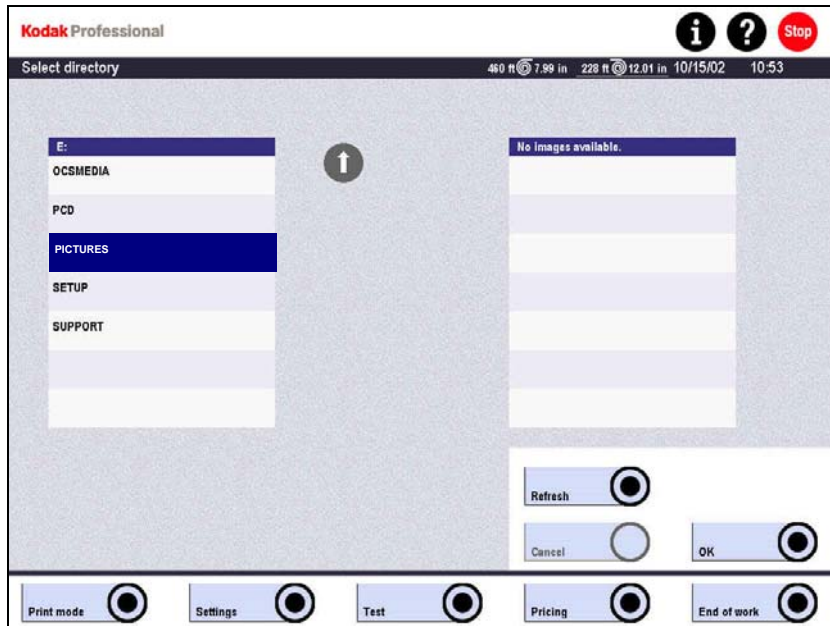
3. If required, touch the directory and sub-directory. Transfer the files to the **Load files (File print)** screen by touching **OK**.
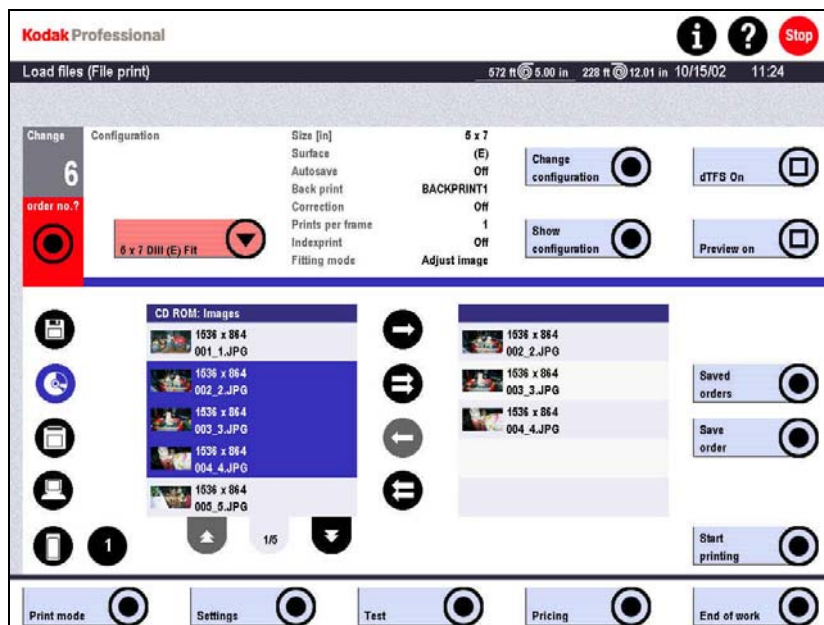
The files available on the selected drive or directory are displayed.

4. Touch the double arrows to add/remove all files, or touch individual files and use the single arrows to add/remove.

5. To enter all image files of an order in the selection list, touch other media or directories one at a time and add any desired files.

If files with the same name are included in the list, they are numbered continuously (for example: spiral, spiral-**2**, spiral-**3**).

6. Touch **Start printing** or **Save order**.

You can print the order immediately with or without Preview, or you can save the order to be processed later. See the next procedure, *Saving Digital Orders (File Prints)*.

Saving Digital Orders (File Prints)

After touching **Save order**, enter the name in the next screen and touch **Save**.
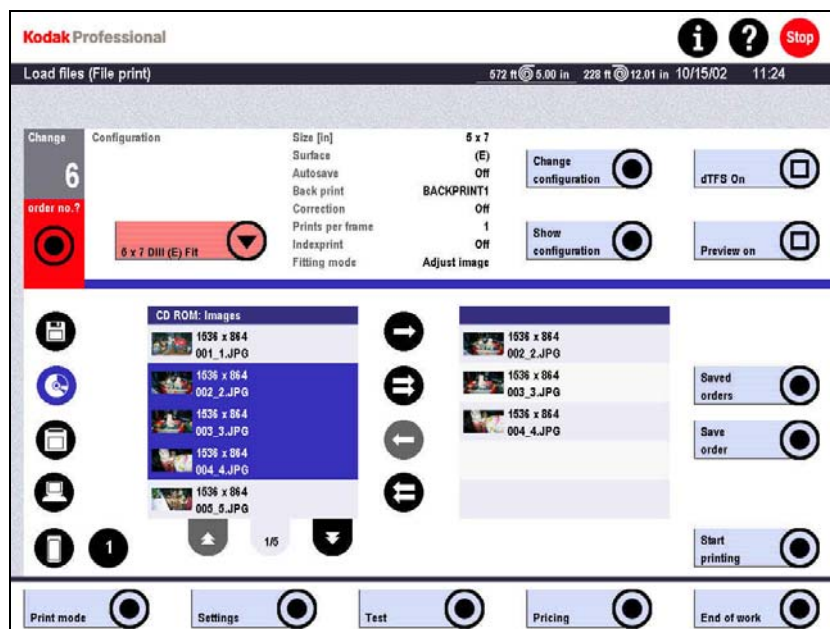
NOTE: Orders that you print immediately and do not save explicitly are automatically stored in a backup directory on the hard disk. This lets you edit frames of a finished order without significant additional work (composing the image files again from the data media or directories), and print again if required.

When the memory is full, you must manually delete the backup files that are no longer needed.

Printing Saved Digital Orders (File Prints)

1. Touch **Saved orders** in the **File print** screen.
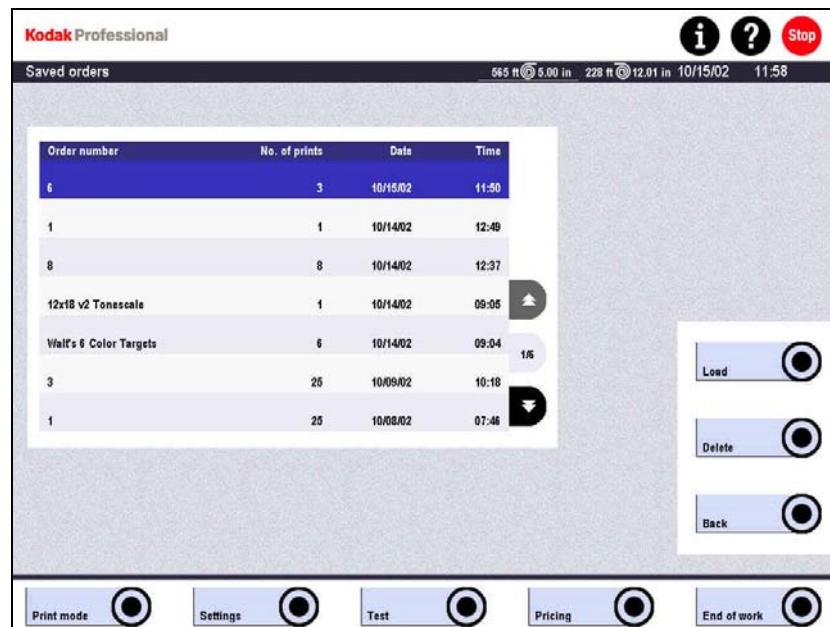
2. Touch the orders that are no longer needed and touch **Delete**. (If no orders are selected, the **Delete** button changes to **Delete all**.)
3. Touch the order to be processed and touch **Load**.
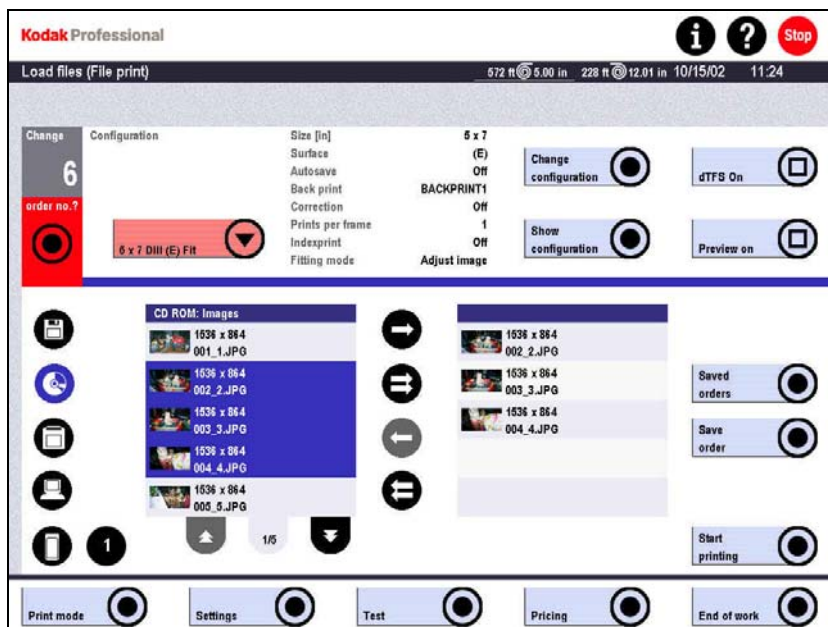
The **File print** screen appears and all files belonging to the loaded order appear in the selected list in the right-hand column.

IMPORTANT: *If you use the arrows to move the files to the left-hand list, the files are deleted.*

4.   If necessary, touch the current configuration and touch a different configuration from the list or touch **Change configuration** (for this order).

5.   If necessary, change the order number.

6.   Enable or disable **dTFS**.

7.   Enable or disable **Preview**.

8.   Touch **Start printing**.

Printing Digital Images without Preview
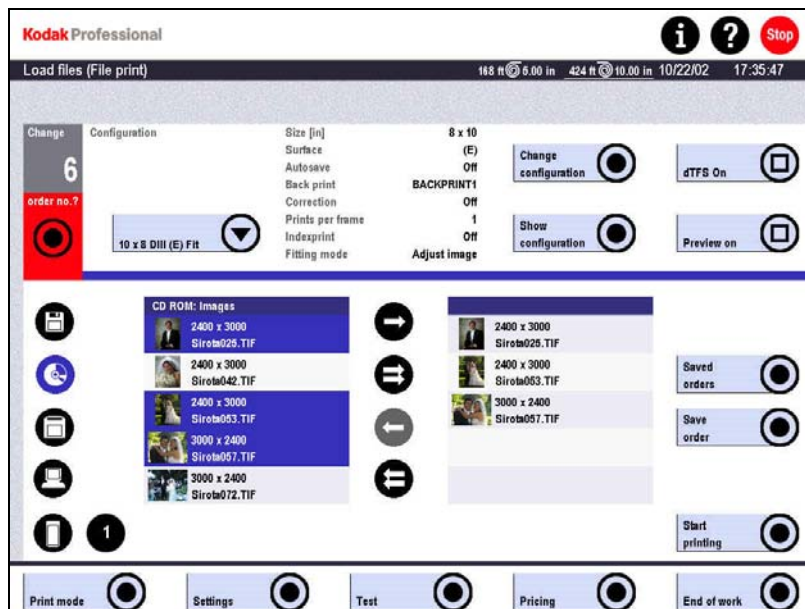
1. Disable **Preview**.
2. Touch **Start printing**.

   While the digital order is being printed, you can begin preparing the next order.
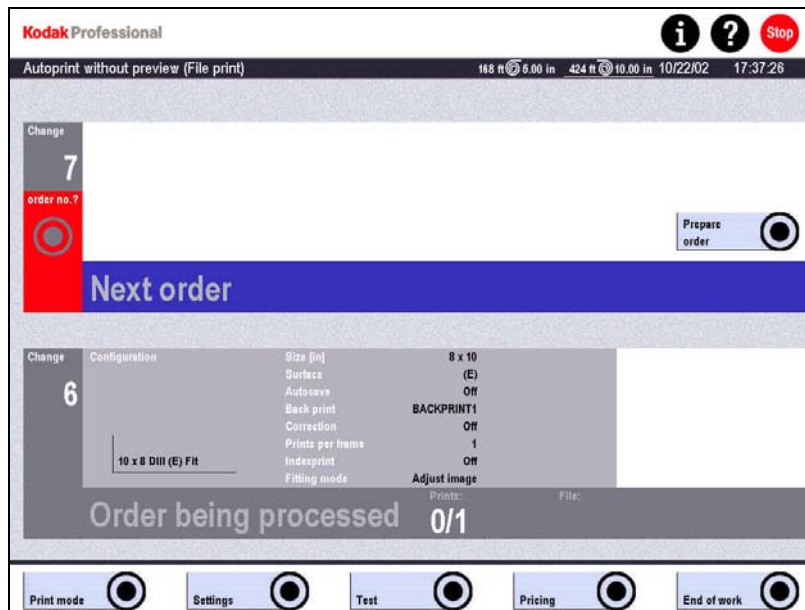
3. Touch **Prepare Order**.

   The screen to load image files from media or stored orders is displayed again.

   NOTE: It is not possible to switch to Autoprint with Preview while an order is processing.

Printing Digital Images with Preview

1. Enable **Preview**.
2. Touch **Start printing**.

The screen displays up to four Preview images at the same time. The right-most image is the current image.

3. To delete the current image without printing, touch **Skip**.
4. To make corrections to the current image, touch the blue **Stop** button.

IMPORTANT: *Do not confuse the blue* **Stop** *button with the red* **Stop** *button (top of the screen) that is used for resetting the printer.*
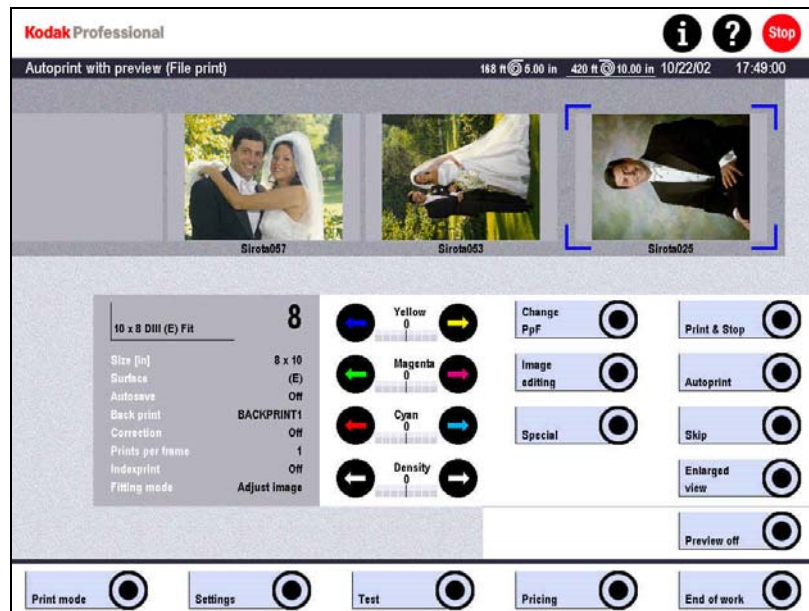
5. Make any necessary corrections to the image. (See *Using Preview* on Page 6-42 for more information.)

6. Touch **Autoprint** to resume printing the images.

7. Continue the previewing and editing operation until all images in the order have been processed.

Slide Print Mode

Use Slide Print mode for printing slides. This print mode always uses Preview.
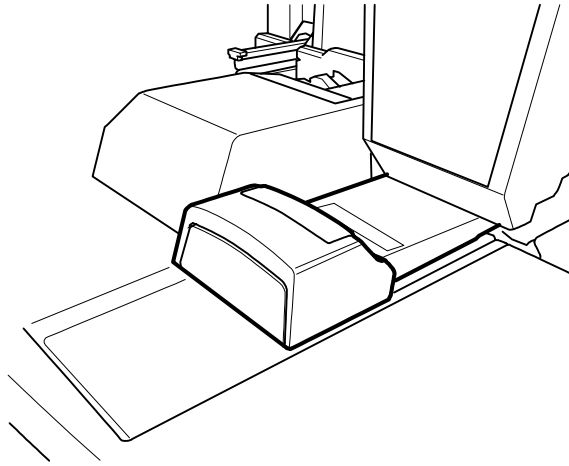
1. Insert the slide carrier.

IMPORTANT: *The system performs an automatic pixel correction. Do not pull out the slide carrier during this process.*

2. Touch:

   - **Print mode**

   - **Slide print**

   The top section of the carrier moves out.

3. If required, touch a different slide print configuration.
4. Touch **Change configuration** if necessary to change the configuration for the order.
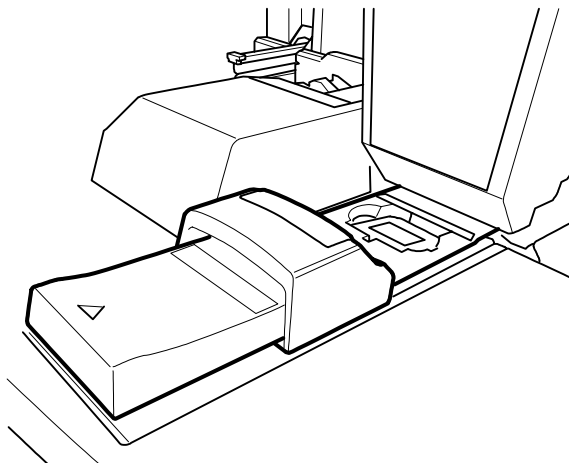
5. Insert the slide, emulsion side down, and push in the top section of the carrier.

    - The system scans the slide (prescan and main scan) and displays it on the screen.

    - The top part of the carrier moves out again.

6. If you inserted the slide the wrong way, the image might be reversed. Touch the icon next to the Preview image to flip the image.

7. Make any necessary corrections to the image. (See *Using Preview* on Page 6-42 for more information.)

8. Touch **Print**.

    The slide is printed with all entered modifications.

9. Continue inserting slides, making any necessary corrections until the order is complete.

10. Touch **Order end**.

NOTE: **Order end** is always initiated manually for slide prints.

Finishing the Order

1. If required, touch **End of order**.

    The end of order must be initiated manually in the Manual Positioning and Slide Print modes. In the other print modes, the end of order has to be initiated manually only if the **Automatic end of order** function has been disabled. (See *Other Settings* in Chapter 4.)

2. After printing, remove the finished prints of an order from the sorter and put them in the order bag, along with the corresponding film.

Using Preview

Use Preview to edit and save the frames, slides, or digital images prior to printing. If you enable Preview before starting the printing process, the **Preview** screen opens after the film is scanned or after the digital images are downloaded. The screen displays up to four thumbnail images at the same time. The right-most image is the current image.

NOTE: The thumbnail images are low resolution and lack the sharpness that the finished print will have.
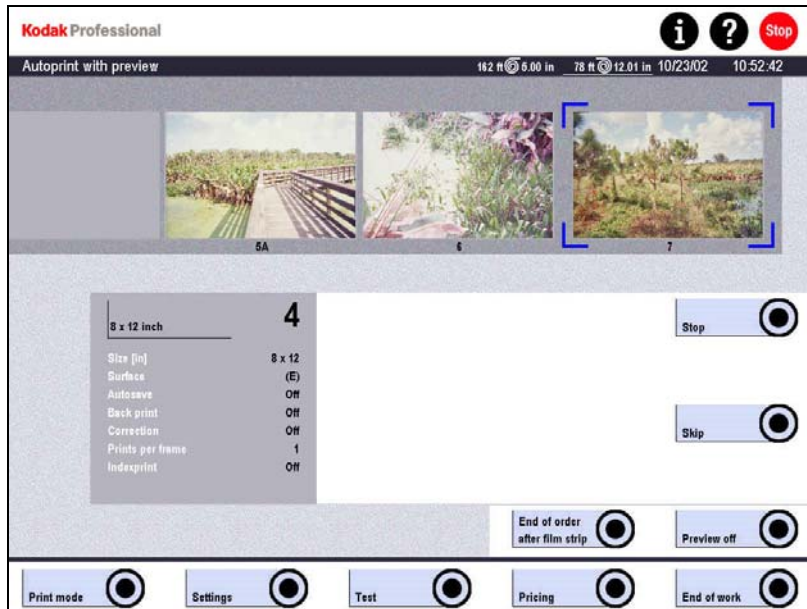
Touch **Enlarged view** to see a larger view of the current image.
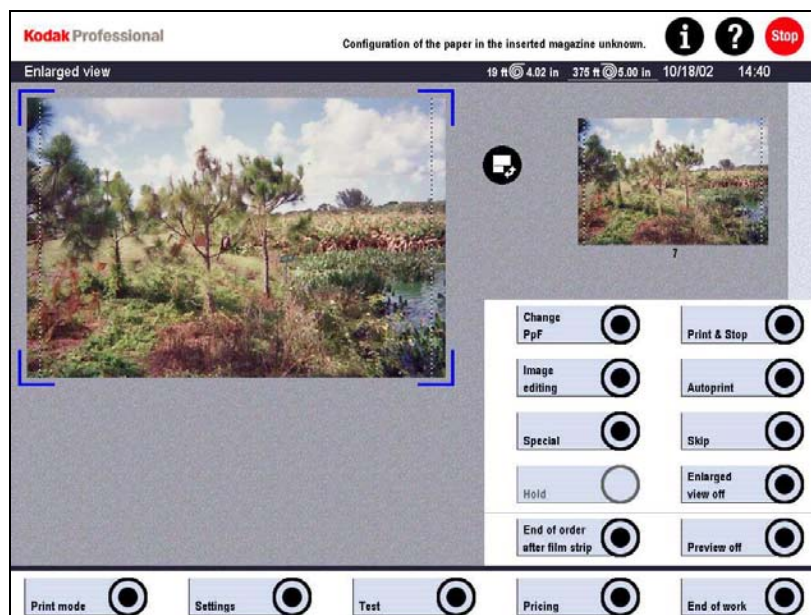
In Preview you can select:

- **Change PpF** to change the number of prints for the selected frame.
- **Image editing** to make color and density corrections, crop images, and enhance images with contrast, sharpness, and saturation. (See Page 6-44.)
- **Special** to add text and borders. (See Page 6-49.)
- **Hold** to save all corrections—except the enlarged view—for all other prints of the order up to the next modification. This operation requires significant time because all images shown in the Preview are recalculated and refreshed.
- **End of order after film strip** to manually end the order after the current film strip is processed. (This button does not appear if you are printing digital images in File Print mode.)
- **Print & Stop** to print the current frame. The frame remains in the Preview so that you can make additional modifications and prints.
- **Autoprint** to print the current frame. The frame disappears from the display and the Preview continues.
- **Skip** to delete the current frame from the screen without printing. The next frame moves in from the left.
- **Enlarged view on/off** to see an enlarged view of the current frame. The **Rotate display** icon button lets you rotate the enlarged picture 90° clockwise.
- **Enlarged view off** to return to the normal view of the four Preview images.
- **Preview off** to disable the Preview feature during the running order. The Preview images disappear and the remaining frames of the film strip are printed with the preset configuration. **Preview off** is useful if you want to begin a new order while the current order is still processing.

Image Editing

Corrections you make on the **Image editing** screen apply only to the current image in Preview mode.

- To make corrections that apply to an entire print production, see *Production Balance* (*TFS* or *Digital*) in Chapter 4.
- To make corrections that apply to a specific print order, see *Correction Configurations*, also in Chapter 4.
- If you encounter problems with image quality, see *Troubleshooting Image Quality Problems* on Page 6-48.

Making Image Corrections

1. From the **Preview** or **Enlarged view** screen, touch **Image editing**.

   The following screen appears. The before and after images are displayed. The images are automatically refreshed after you make corrections.
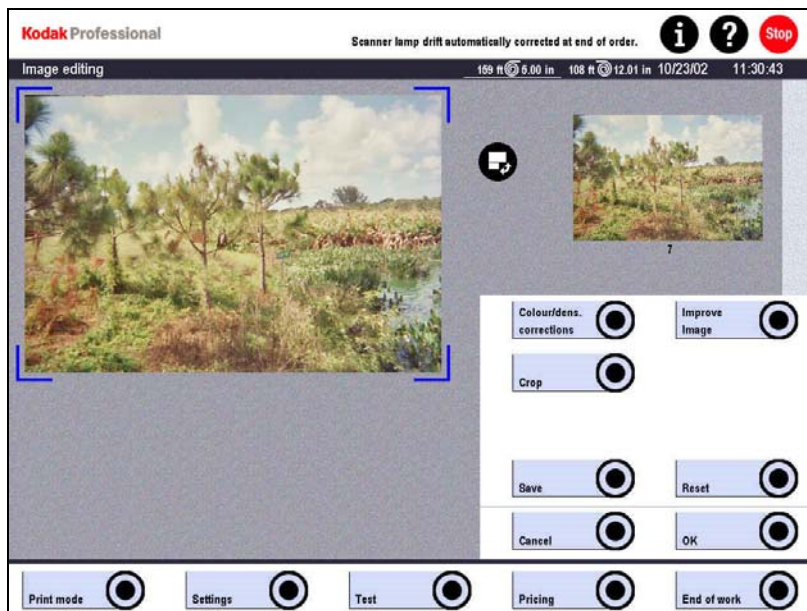
2. Touch **Colour/dens. corrections**.
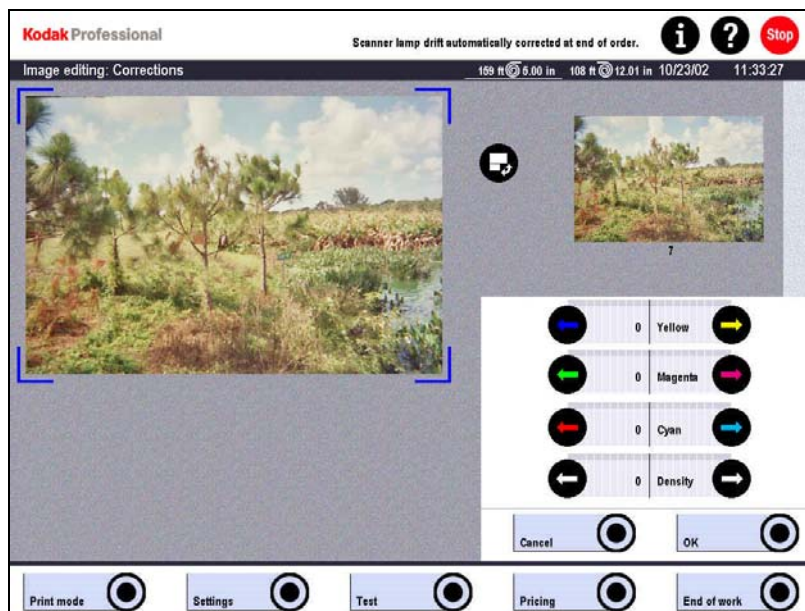
3. Set the desired color and density corrections.

4. Touch **OK** or **Cancel**.

   You are returned to the **Image editing** screen.

5. Touch **Crop**.
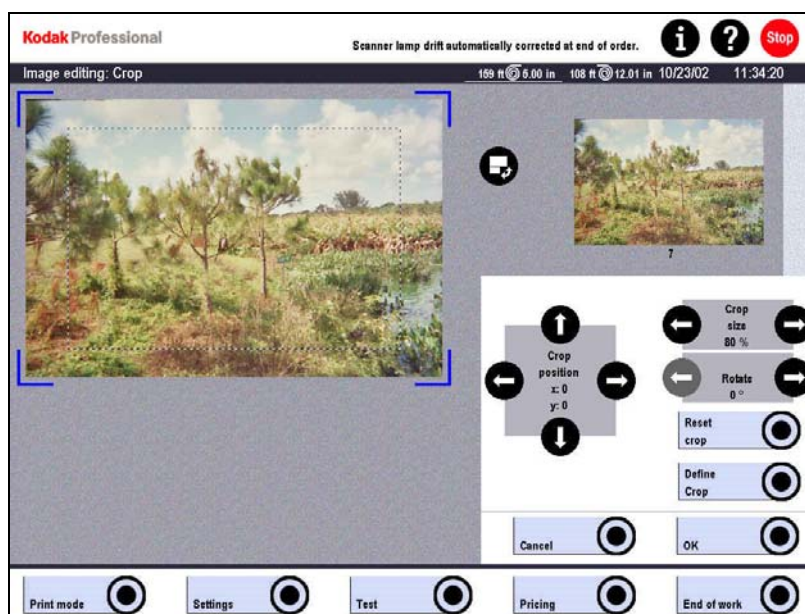
6. Touch the arrows to set the **Crop position** and percent **Crop size**.

7. Touch **Define Crop** to set the crop parameters, or touch **Reset Crop** to go back to the original parameters.

8. Touch **OK**.

   You are returned to the **Image editing** screen.

9. Touch **Improve Image**.
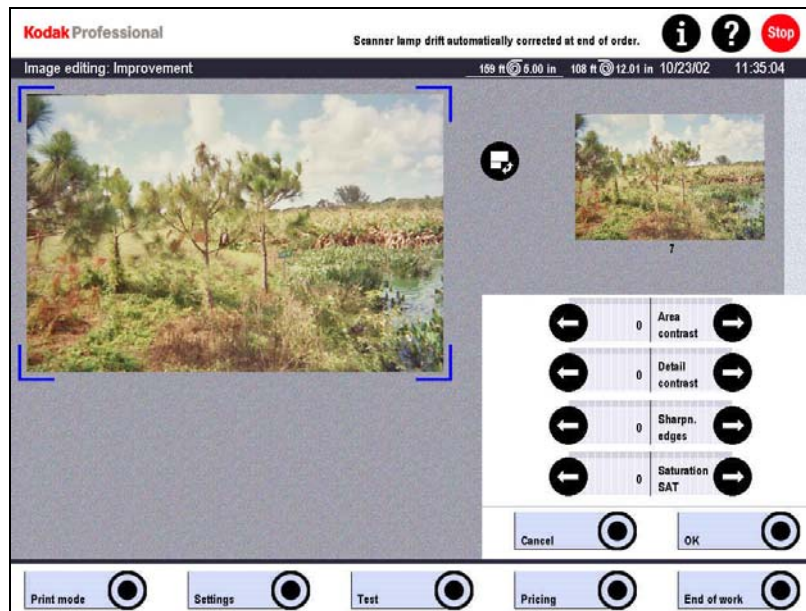
10. Modify the following parameters:

    - **Area contrast**
    - **Detail contrast**
    - **Sharpness**
    - **Saturation**

11. Touch **OK**.

    You are returned to the **Image editing** screen.

12. If you would like to save the edited image to a diskette, ZIP disk, or workstation folder, touch **Save**.
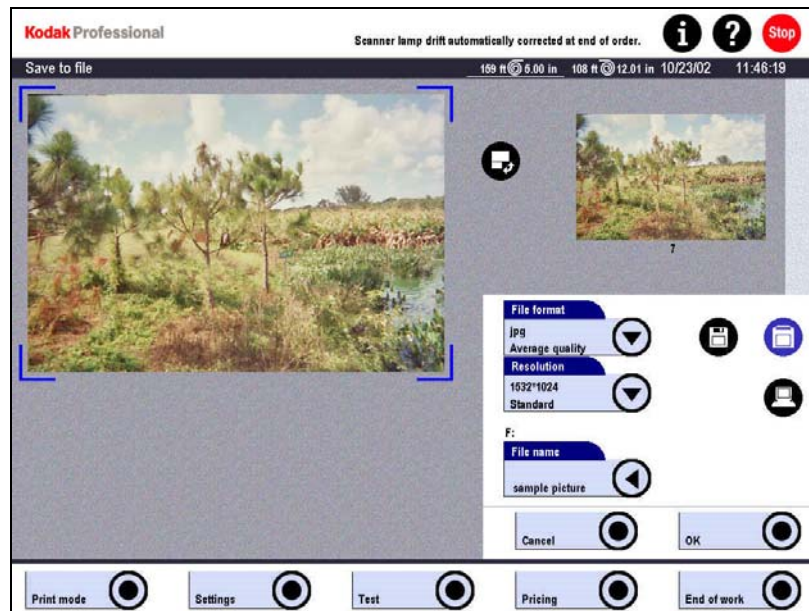
13. Select a file format, resolution, file name, and storage medium. (Check that the storage medium is inserted into the appropriate drive, if applicable.)

14. Touch **OK** (to save) or **Cancel**.

    You are returned to the **Image editing** screen.

15. To return all editing parameters to the original settings, touch **Reset**.

16. Touch **OK**.

    You are returned to the **Preview** or **Enlarged view** screen.

Troubleshooting Image Quality Problems

Symptom	Solution
A white outline surrounds certain objects in scanned images.	Decrease the **Sharpen Edges**[1] parameter in the user interface until the artifact is sufficiently reduced. IMPORTANT: *This action will reduce the overall sharpness of the scan.*
Scans from reversal/slide film at default user interface settings are high in contrast.	Decrease the **LCT**[1,2] parameter in the user interface.
Scans made from the same negative at two separate times appear very different in color and/or contrast.	Check that the image correction parameter settings are the same for both scans. Check that a PBL has recently been performed on the paper being used for printing. Perform a PIKO test to recalibrate the scanner. If these steps do not correct the problem, press the scanner **ON** key to initiate a reset.
When scanning slides, a density shift occurs along a distinct line near the center of the X or Y dimension of the scan/print. This is particularly visible in the high-density regions of the slide.	Rotate the film 180° and rescan. If the problem persists, attempt to alter the user interface contrast parameters to minimize the artifact.
Scratch correction does not work when scanning slides.	Scratch correction works only when scanning negatives.
Cannot scan strips of reversal/transparency film.	Only mounted 35 mm slides can be scanned.
A single-frame negative is partially ejected from the film gate during system reset.	If possible, remove the negative from the film gate after the reset window appears but before clicking the **Clear** button in the lower-right corner of the window. If the negative has already been ejected, remove the mirror box and the film take-up roll, lift the film gate cover, and pull out the negative. (Use caution because the negative will be under tension).

---

[1] This parameter appears in Preview mode under **Image editing / Improve image** (for corrections to individual images during production); in **Settings / Machine settings / Production Balance** (for corrections to all images in a print production); and in **Settings / Print configurations / Corrections** (for corrections to images in a specific print order).

[2] The LCT (luminance contrast) parameter only appears in screens specific to slides or Slide Print mode.

Special

The Special function lets you add text or borders to images.

1. From the **Preview** screen, touch **Special**.
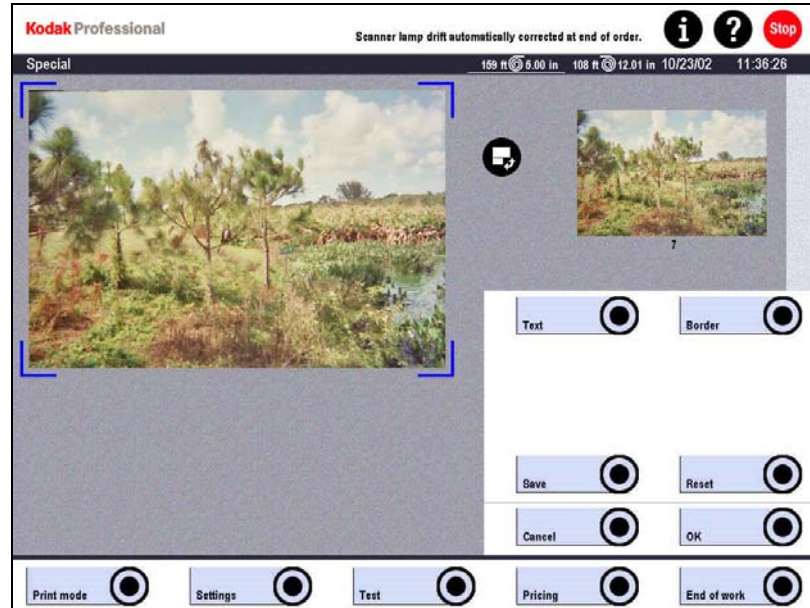
2. Touch **Text**.
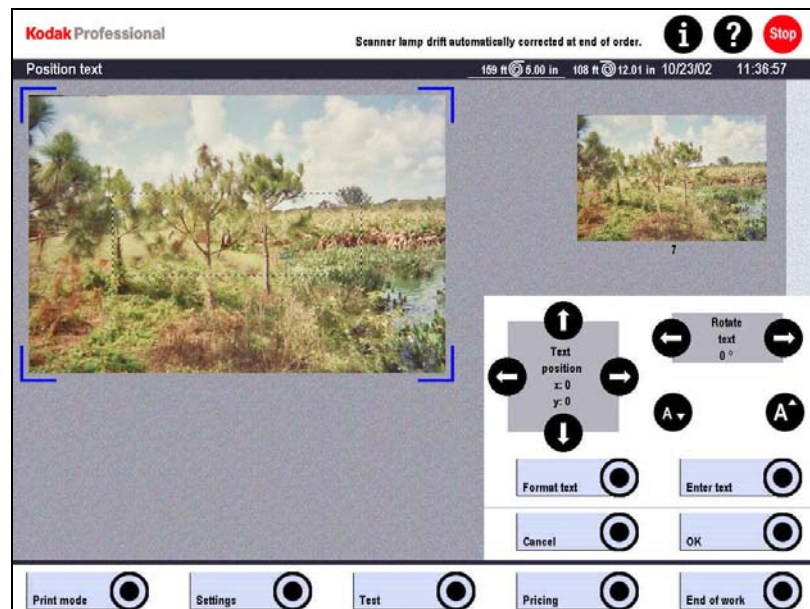
3. Touch **Enter Text**, enter your text, and touch **OK**.
4. Touch **Format text**.
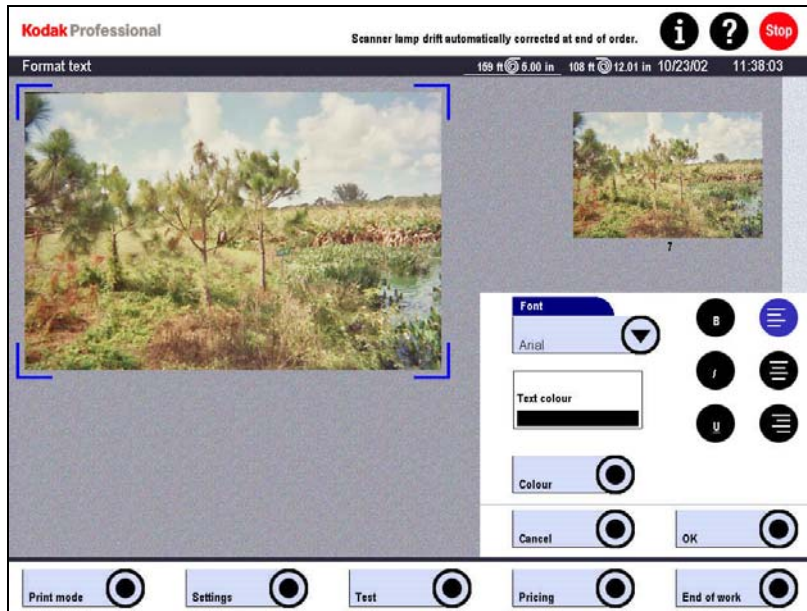
5. Touch **Font** to select the type of font for your text.

6. Touch **B** for bold, **I** for italic, and/or **U** for underline.

7. Touch the appropriate justification symbol: left justified, centered, or right justified.
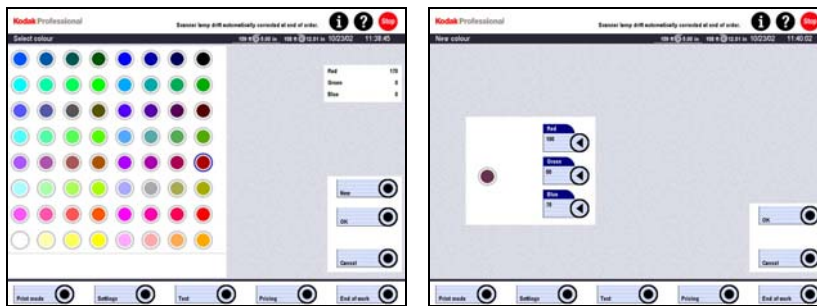
8. Touch **Color**.
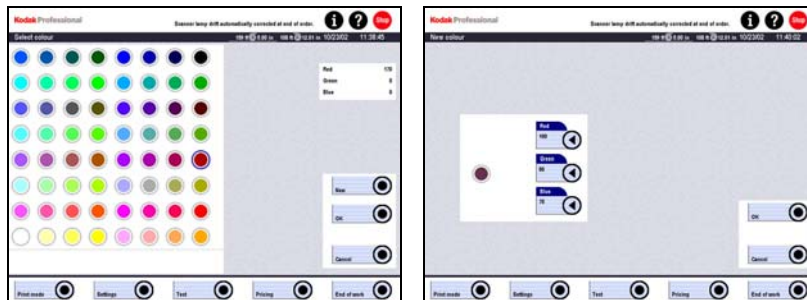
9. Select a text color from the palette or touch **New** to create a new color. Touch **OK**.

10. Touch **OK** again.

    You are returned to the **Position text** screen.
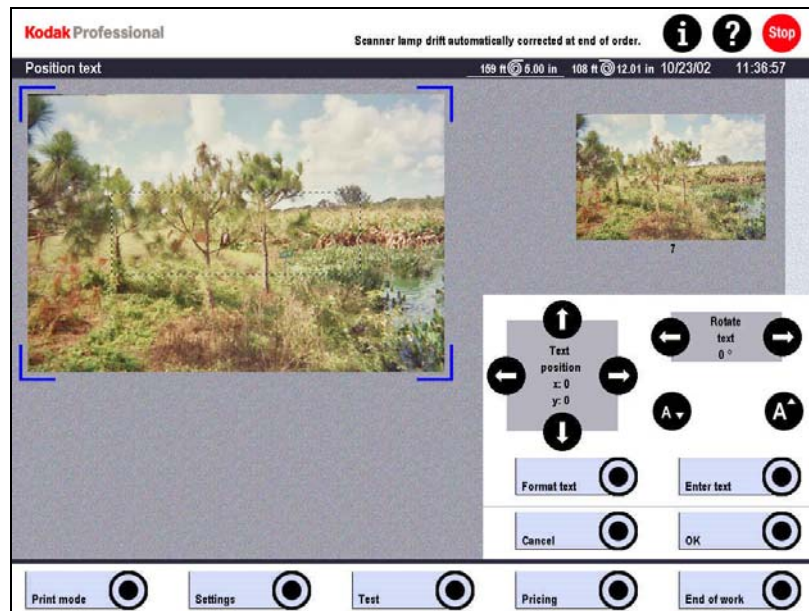
11. Touch **A▾** to reduce or **A▴** to enlarge the font size.

12. Touch the **Text position** arrows to position the text.

13. Touch the **Place text** arrows to rotate the text in steps of 90°.

14. Touch **OK**.

    You are returned to the **Special** screen.

15. Touch **Border**.
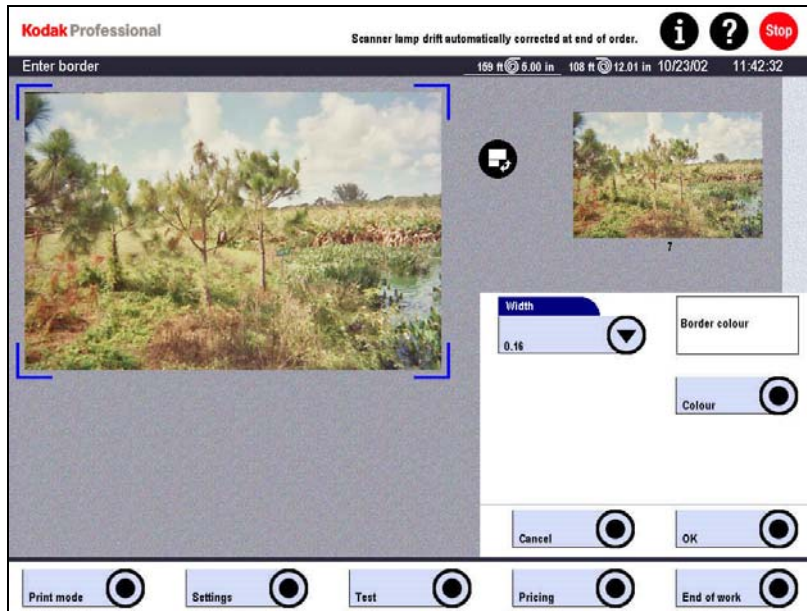
16. Touch **Width** and select a border width.

17. Touch **Color**.

18. Select a border color from the palette or touch **New** to create a new color. Touch **OK**.

19. Touch **OK** again.

    You are returned to the **Special** screen.

20. Touch **OK** to return to the **Preview** or **Enlarged view** screen.

Saving Image Data in a File

1. Touch **Save** on the **Image editing** and **Special** screens.
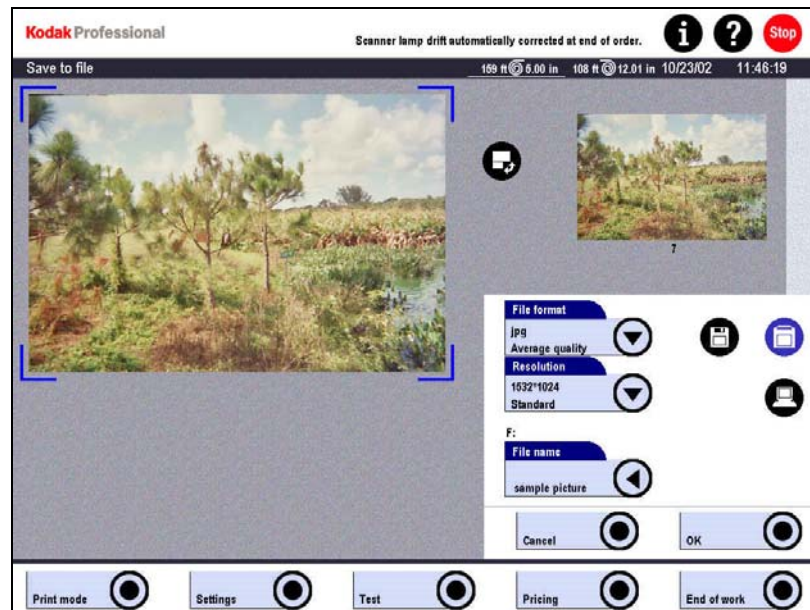
2. Touch **File format** to select from a list of jpg and bmp file formats.
3. Touch **Resolution** to select from a list of resolution formats.
4. Touch one of the media icons: diskette, ZIP disk, hard disk, or external directory.

   If there are no sub-directories on the storage medium, the **Save to file** screen remains in view. Touch **OK** to save the file or **Cancel** to return to the previous screen without saving.

If there are sub-directories on the storage medium, a **Select directory** screen opens.
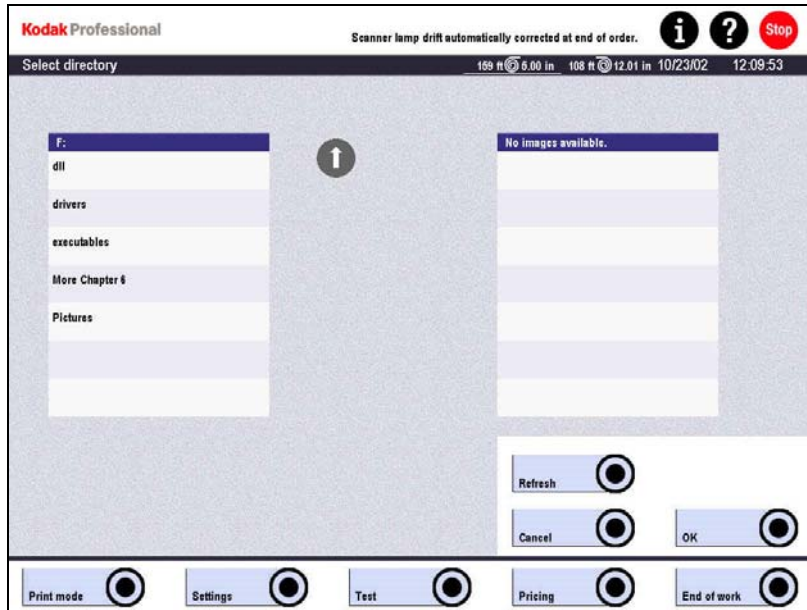
a. Select a directory from the left-hand column. Files already saved to that directory appear in the right-hand column.
Or

b. Touch **OK** to save the current file, or **Cancel** to return to the previous screen without saving.

The **File names** are allocated automatically:

- DX-coded film: Negative-dependent (example: 13A.bmp)
- Films without a DX code: Continuous (example: no1.bmp, no2.bmp)
- Digital files: Names already existing (example: image3.jpg)

Images in the Network

Image data is sent to an external computer by way of the SRP 30 Laser Printer's Ethernet interface, and from there by way of a data network such as the Internet.

Image data can be received from customers from an external workstation and printed on the SRP 30 Laser Printer (assuming the workstation is equipped with KODAK PROFESSIONAL Digital Print Production Software or other suitable software).

Printing Network Orders

NOTE: You must create a print configuration with the required paper width
beforehand so that the network order can be printed.

The SRP 30 Laser Printer can be connected to several workstations in the lab. These
workstations can send completely prepared orders at any time to the SRP 30 Laser
Printer for printing. Each order consists of the image files and a descriptive file that
contains information about the back print text, the print size, the number of prints per
image, and the configuration.

Supported formats are:

- PFDF (Photofinishing Data Format) for the complete orders
- jpg, bmp, tif for the single images of a complete order

The workstation can send orders at any time. When the files reach the SRP 30 Laser
Printer, the orders are executed automatically, without Preview.

Starting Network Orders

Network orders are initiated at a remote workstation equipped with
KODAK PROFESSIONAL Digital Print Production Software or other suitable
software. When a workstation is preparing to send network orders, the message
"Network connection being established..." flashes on the printer monitor
approximately every 25 seconds. When the network connection is established, orders
start transmitting and the following screen opens.
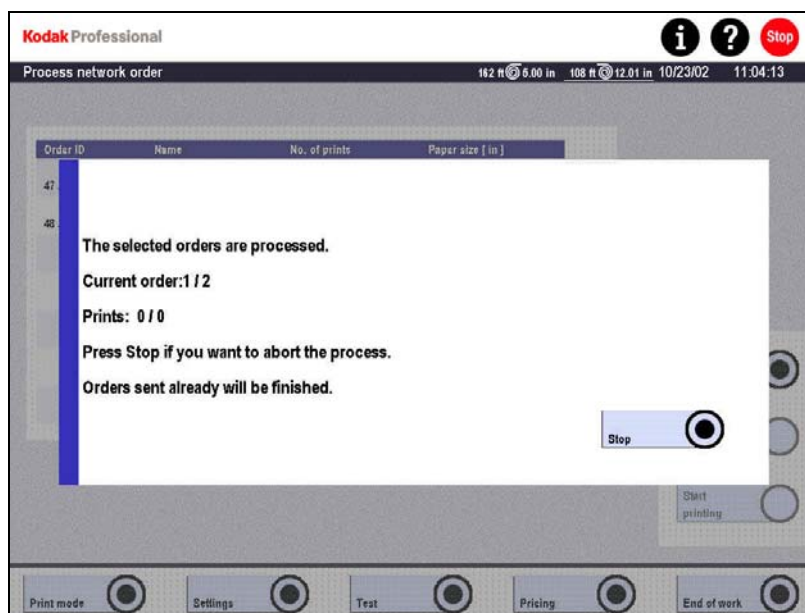
The network orders print automatically until all are completed. Orders requiring a
different paper width than is currently installed on the printer are skipped.

You can stop network orders from printing by touching the blue **Stop** button. The
current order is completed, but any additional orders are terminated.

IMPORTANT: *Do not confuse the blue* **Stop** *button with the red* **Stop** *button (top of the screen) that is used for resetting the printer.*

To resume printing the unprocessed network orders, the remote workstation must send the orders again.

IMPORTANT: *To maintain optimum throughput of network orders, check that the* **Autom. printing** *button in* **Settings / Machine settings / Network orders** *is set to* **Off**.

Index Prints

If you specify an index print layout and configuration in the order configuration, the printer automatically creates an index print at the end of the order. The paper size of the index print does not depend on the size of the single images.

Configuring Index Print Layout

Basic index print layouts for the various film sizes and film lengths are included with the SRP 30 Laser Printer. You can create customized layouts with the Layout software provided by Kodak. To import and use these customized layouts, a license key is required. See *Importing an Index Print Layout* in Chapter 4.

To add a layout to an index print configuration, see *Index Print Configurations* in Chapter 4.

Film Strips

For film strips ≥ 400 mm, the single images of the index print are arranged by ascending DX numbers.

For film strips < 400 mm, the single images of the index print are arranged in the scanning order.

If DX numbers are available, they are displayed in the **Images per Index print** field of the following screen (**Settings / Machine settings / Index print**).
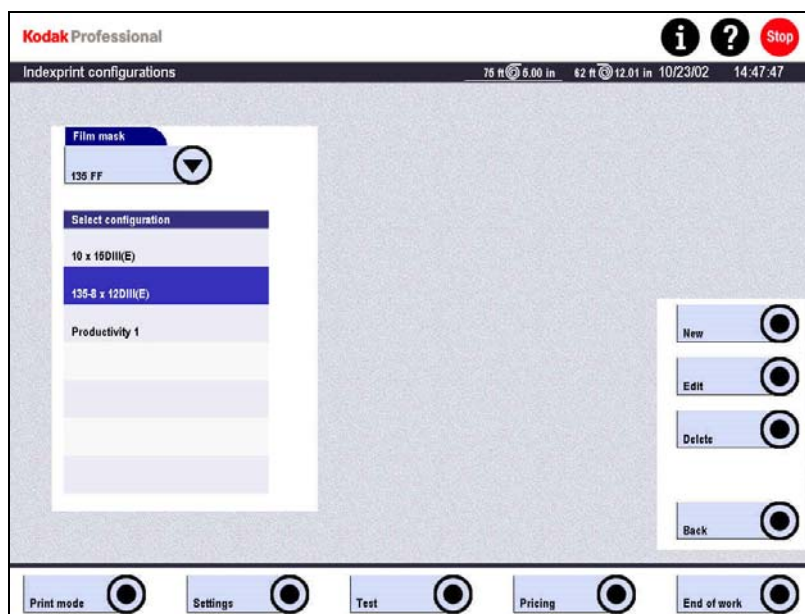
APS Films

The size set on the APS camera is indicated by **C**, **H**, and **P** (Classic, High Vision, and Panorama) under the **Images per Index print** in the **Indexprint configurations** screen.

The crop setting stored on the film is always shown (a line in the single image), even if a different crop is printed.

File Prints

The filenames are printed as subtitles.

Number / Aspect Ratio of the Single Images per Index Print

Number

For film strips $\geq$ 400 mm, the number of single images is automatically selected by the SRP 30 Laser Printer so that the scanned film fits on the index print: 15, 25 or 40 images.

For film strips < 400 mm and slides, there are only 25 (for APS) or 40/42 (for all other film sizes) images per index print. The distribution to several Index prints is done automatically.

An order may hold up to a maximum of 42 images. Larger file print orders are therefore split up so that the customer gets several index prints.

Aspect Ratio

The aspect ratio of the images of the index print corresponds to the one of these image sources:

9/16   APS
2/3   135 color frame, slide, B/W, 6x9
1/1   6x6
3/4   4.5x6
100/77   Image files

For file print, a single image is reduced so that it fits in the predefined window if the image data has a different aspect ratio.

Index Prints in the Different Print Modes

Index prints are printed automatically at the end of the order if this has been specified in the configuration.

For Autoprint without Preview

All frames are shown on the index print with the corrections of the configuration in use.

For Autoprint with Preview

In this mode, all scanned frames (not only the printed ones) are shown on the index print, with the corrections used for the first print. Additional manual corrections are not taken into consideration. Each frame appears only once on the index print, even if it was printed in several versions.

For Reorders

All scanned images appear once on the index print. The layout defined in the configuration for the first image is used as the standard. This setting can be modified.

For Packages

All scanned images (each one scanned only once) are included.

For File Prints

All files of the order are included.

For network orders from workstations, if an index print is specified in the descriptive order file, it is printed with all files of the order.

NOTE: Index prints are not possible with Manual Positioning mode.

Print Only Index Print

There are two options:

- Set the number of prints to zero.
- Modify the configuration as appropriate.

Notes

- Index print size up to 20x30 mm:
  If a large size is selected for the next order, the beginning of the order may be delayed.
- The Hold function may not be effective for the next frame so that a delay may occur, depending on the size. Modifications also affect single photos of the index print.
- The index print is true-to-color because it is not produced by a separate camera.
- For index prints on two sheets, the maximum duration is 3 minutes.
- Preview is not available for index prints.

Printing Price Labels (Option)

NOTE: The Pricing + Label Printer is an optional accessory.

The **Pricing settings** and **Pricing** features in the **Pricing + Statistics** menu are normally disabled. You must purchase a license to enable these features. (See *Enabling the Software* in Chapter 4.)

See the label printer manual for instructions on using the printer.
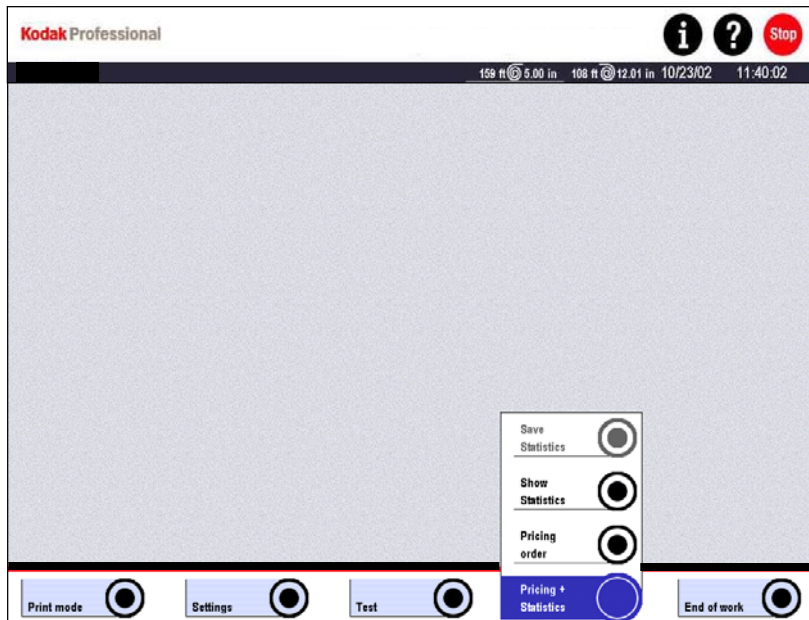
Statistics

The system checks statistics during Sleep mode. Enable the Sleep mode for the days and times you want statistics to be checked. (See *Defining Times for Startup, Shutdown, and Sleep Mode* in Chapter 4.)

Saving Statistics

The Save Statistics feature is an optional accessory that is normally disabled. You must purchase a license to enable this feature. (See *Enabling the Software* in Chapter 4.)

1. Touch:
   - **Pricing + Statistics**
   - **Save Statistics**
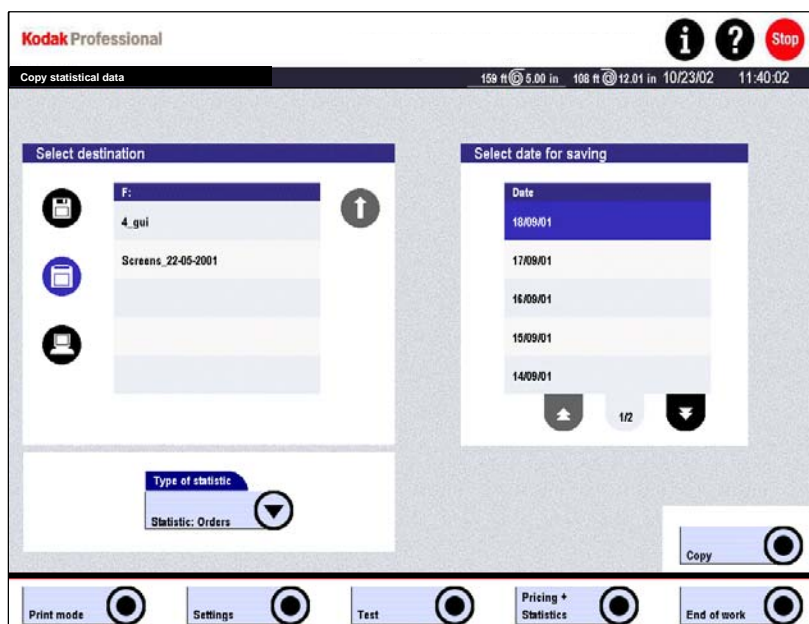
2. Select the destination (storage medium): diskette, ZIP disk, or workstation. (Check that the storage medium is inserted into the appropriate drive, if applicable.)
3. Select the date.
4. Select the type of statistic.
   - Statistical data of order configurations (example: 16_11_2001_Order.qlx)
   - Statistical data of paper configurations (example: 16_11_2001_Paper.qlx)

   The files are updated every day or overwritten every time the machine is shut down. Therefore, not more than two files are produced automatically each day.

NOTE: The files are stored in the D:\Data\Statistic directory and can be selected using the **Test / Remote Service** menus.

Viewing Statistics

1. Touch:
   - **Pricing + Statistics**
   - **Show Statistics**

2. Touch **Film mask** to display a list of the number of prints (today / total) listed by print sizes.
3. Touch **Print Mode** to display the number of prints, index prints, orders, scanned frames, and paper consumption (today / total).

Chapter 7 Correcting System Conditions

Contents

System Errors

Avoiding Handling Errors

CAUTION: **Never turn off the SRP 30 Laser Printer with the main switch because this may:**

- **Reduce the service life of the blue/green laser considerably because the laser fan does not remain on to cool the laser.**

- **Cause problems with the main computer. The operating system may have to be reinstalled. The main computer should always be shut down using End of work / Shutdown.**

- **Cause paper jams if not all prints have exited the paper processor.**

Error Messages

Error messages can appear in two ways:
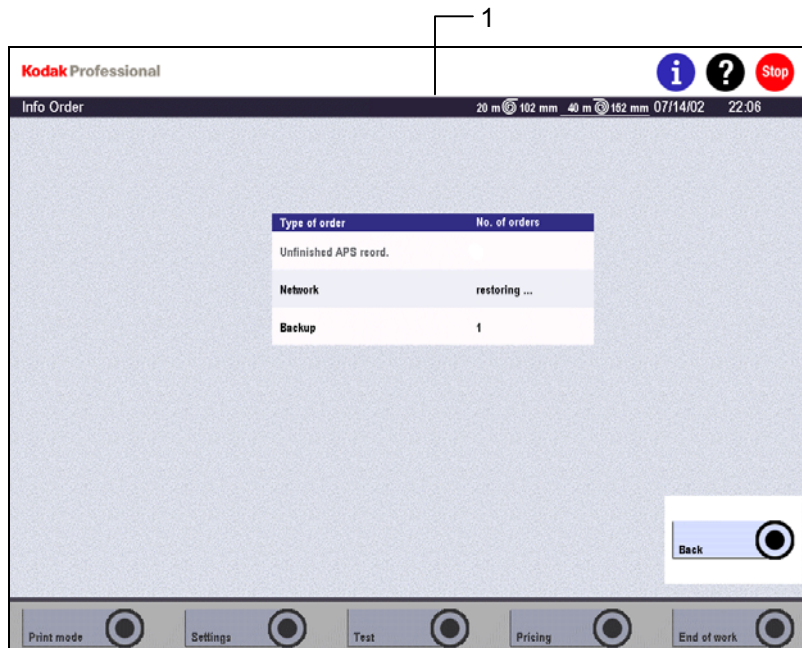
1. In the Status line (1) as information or warning messages that do not need to be confirmed:

   Work can continue in some cases, but you should perform the required operations without delay (for example, refilling chemicals or emptying the effluent tank).
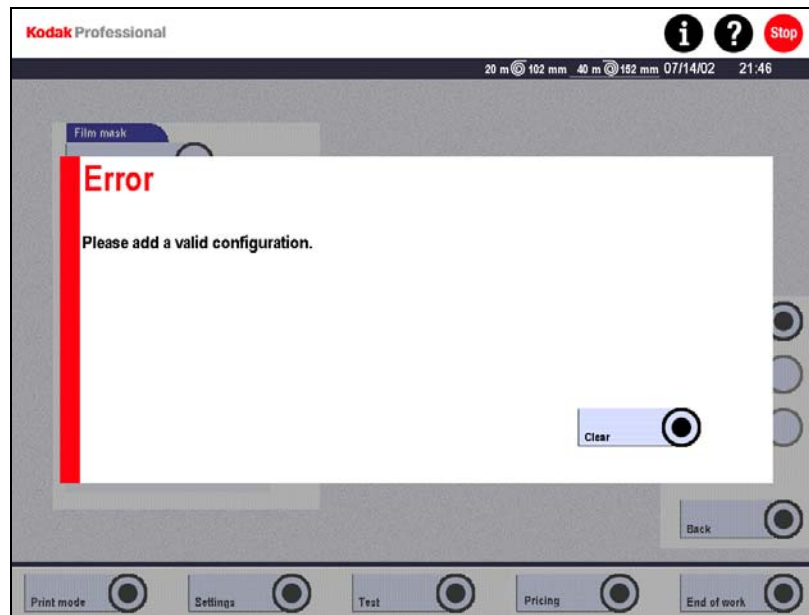
2. In an error pop-up window:
   The work process is stopped. You must remove the error and confirm by touching **Clear**. For some system errors, the pop-up window disappears automatically after the error has been cleared.

Resetting the Equipment

There are three methods for resetting the SRP 30 Laser Printer:

- Using the **Film stop** key on the scanner
- Using the **Stop** button on the screen
- Using the **ON** key on the scanner

Reset Using the Film Stop Key
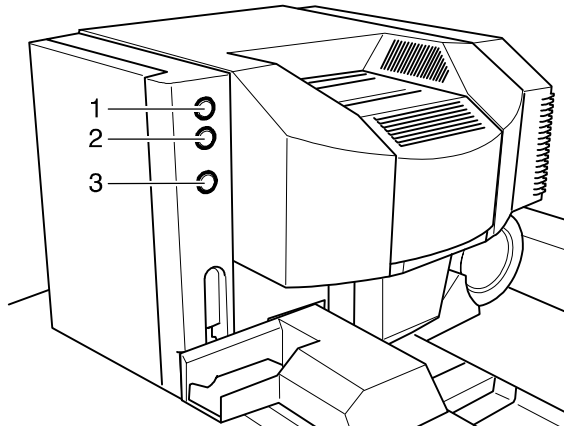
1   **ON** key
2   Timer lamp
3   **Film stop** key

1. Press the **Film stop** key (3) to stop the film advance during the scanning.

    The system stops all motors of the film drive immediately and opens the Reset pop-up window containing **Yes** and **No** buttons.

IMPORTANT: *Before continuing, wait until the paper transport in the printer is empty. Otherwise, there is the risk of a paper jam.*

To verify that the paper transport is empty:

- *Check that no sound is coming from the printer.*
- *Touch* **i** *and check the position of the prints using the Info function.*

2. When all of the prints are in the paper processor, touch **Yes** to start the reset.

Reset Using the Stop Button on the Screen

Use this reset method if the equipment no longer responds to operator entries.
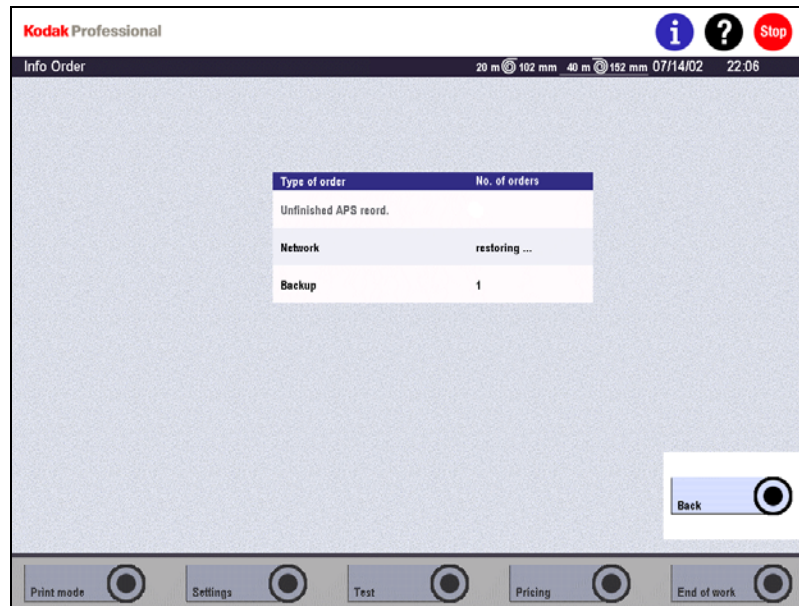
1. Touch the red **Stop** button on the screen to initiate a software reset.

   The system moves the film and paper out, stops the order in progress, and opens the Reset pop-up window containing **Yes** and **No** buttons.

   IMPORTANT: *Before continuing, wait until the paper transport in the printer is empty. Otherwise there is the risk of a paper jam.*

   To verify that the paper transport is empty:

   - *Check that no sound is coming from the printer.*
   - *Touch* **i** *and check the position of the prints using the Info function.*

2. When all prints are in the paper processor, touch **Yes** to start the reset.

   The system initializes the main assembly groups and deletes information regarding previous orders (such as Reorder lists). This process takes about 3 minutes.

Reset Using the ON Key

The advantages of using the **ON** key to initiate a reset are:

- The laser does not need to be started.
- No new PIKO is required.
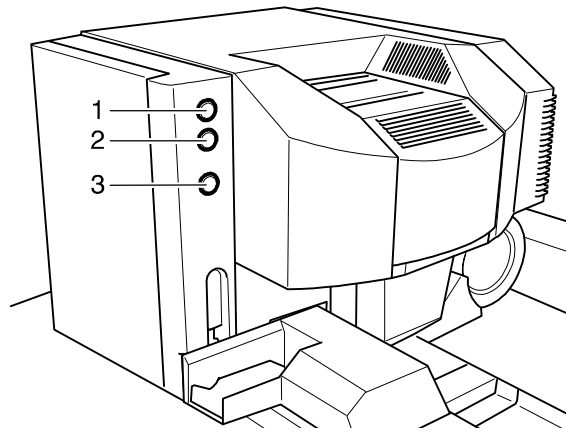
1 **ON** key
2 Timer lamp
3 **Film stop** key

Press the **ON** key to initiate a reset when:

- The whole system must be initialized (for example, when using the **Stop** button has no effect).
- The selected actions are not executed (the system is "locked up")
- An undefined operating status has occurred.

IMPORTANT: *Do not pull out the film mask during a reset.*

The system automatically saves the database prior to a reset. After the reset, the system starts up again and loads the last valid backup.

You do not lose data. The system is in the same status it was before the **ON** key was pressed.

Error Handling

General

- Remove errors if the cause is known.
- Touch **Clear** if this button is shown.
- If required, do the procedure *Reset Using the Stop Button on the Screen* on page 7-5.
- If the message **Reset successful** appears, work can be continued. If not, you must take further action. See below.

Unresolved Errors
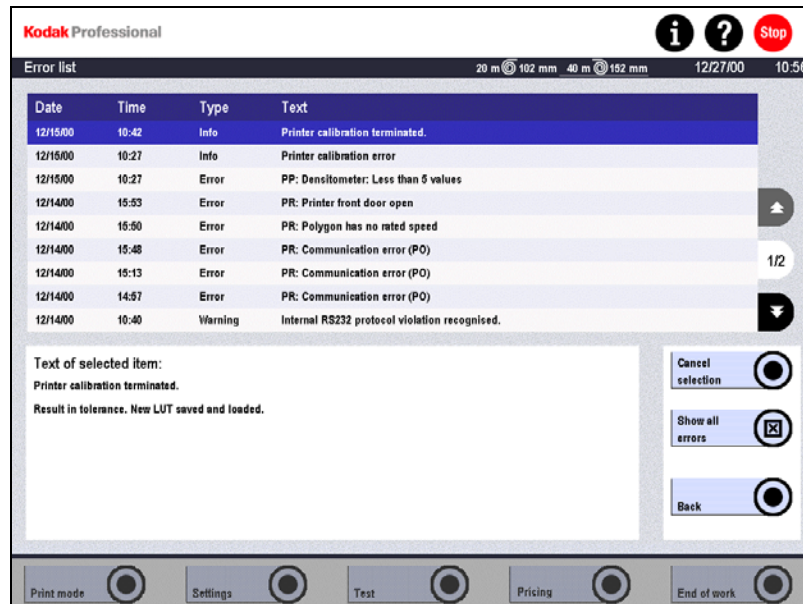
1. Touch **i** to open the error list. All error messages shown in the status line are saved. The list shows the error messages with the date and time of occurrence.
2. If an error in the paper processor has not been removed, select the error message and touch **Cancel selection**.
3. Printer messages mainly refer to paper that has to be removed. Remove the paper.
4. Disable **Show all errors** so that only active errors are displayed. Remove and delete all active errors from the list with **Cancel selection**.
5. If the system still does not perform a reset automatically, exit the error list and touch **Stop** to reset the system manually.
6. If the reset is unsuccessful, open one of the front doors. This causes the system to display the large error pop-up windows again.
7. If the loop—constantly unrepaired errors—cannot be interrupted, push the **ON** key on the scanner.

Gray Screen After Reset

If the screen remains gray for more than 3 minutes after a reset, press the **ON** key on the scanner.

Image Processing Errors

It is possible to have several images that cannot be printed, but only the last image is displayed. If this happens, touch **Clear**.

NOTE: Types of adjustment for File Print mode:

- **Fill Print**
  Center crop; image information getting lost

- **Fit image to paper**
  The whole image remains unchanged, but a border is added.
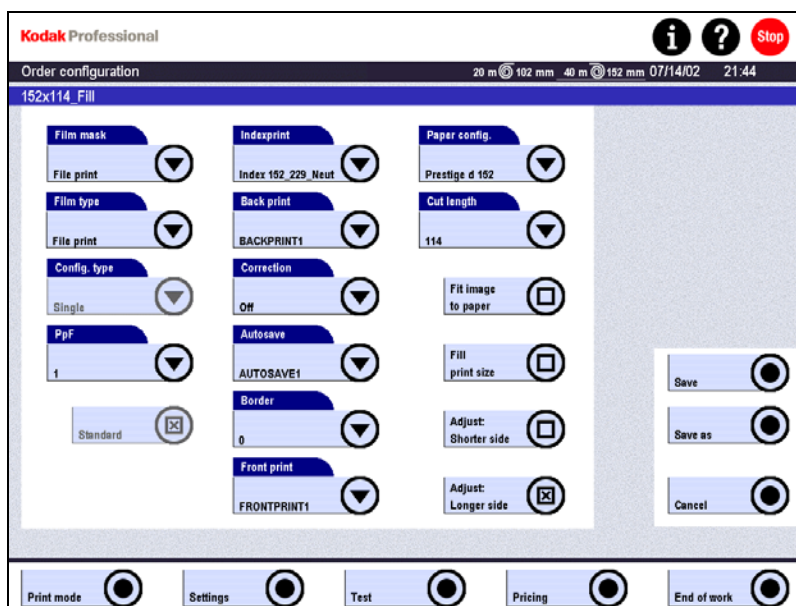
If **Fill print** is selected, the aspect ratio of the frame must approximately correspond to that of the print size. If there are larger differences, the error message **Parameter range violation** appears. The image can then only be exposed with **Fit image to paper**.

Paper Processor Errors

Some errors cause the printer to stop. If paper is still in the transport area of the printer, you must remove the paper before work can continue.

If an error occurs during a reset, a message appears indicating that there are unrepaired errors. You must clear these active errors from the error list.

1. Disable the **Show all errors** option to display only active errors.
2. Do a reset.

Printer Errors

Do the steps below if the system displays messages such as:

- **Paper in the Printer**
- **nn_LSxx not reached**
- **nn_LSxx not free**
- **TU2 not ready**

  (nn = PE, LD, TU; xx = Number of the light sensor)

1. Remove the paper from the printer.

IMPORTANT: *Make sure to do this first or consecutive errors may occur.*

2. Touch **Clear**.

Do the steps below if the system displays messages such as:

- **Shutter not reached (MR, ML)**
- **SG_LS01 not reached**

  (MR / ML = Magazine RHS / LHS; SG = Sheet Gear)

1. Pull back the magazine lever, check the paper for correct position in the magazine, and push in the magazine.
2. Touch **Clear**.

Other Error Situations

If the system stops without displaying a message or the menus cannot be exited:

1. Touch the **Stop** button on the screen.
2. Wait until there is no paper in the printer.
3. Touch **Reset**.

Help in Case of Error Messages

You can display Help text for error messages in the following ways:

- Touch the **?** button to open the Help screen.
- Touch the **Error Help Index** button to open the alphabetical list of error messages.
- Touch the error message to see the associated Help text in the lower part of the screen.

Removing Paper Jams

WARNING: *To prevent injury when working in the printer area, avoid contact with the toothed belts and any sharp corners or edges.*
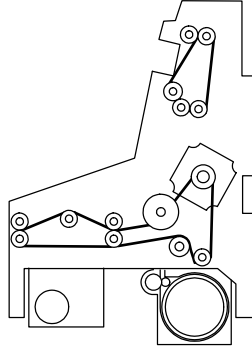
When a paper jam occurs:

1. Remove the paper from the indicated position. To see the location of the jam, touch **i** and the desired module in the graphic.

2. If you cannot find the jam location, do these steps in order:

IMPORTANT: *When you locate the paper jam, always try to pull the paper out in the direction of the paper advance.*

   a. Open the bottom transport unit. Wind out up to three prints by hand, some of them from the turnaround roller at the entrance of the transport unit.

   b. In the switching gear before the transport unit, lift the guide plate (if required) and turn the drive roller by hand to check if there is still cut paper in the switching gear.

   c. In the upper transport unit, lift the guide plate and check if paper is underneath.

   d. Check the entrance and exit of the print engine.

   e. Check the lane distributor and transfer from the lane distributor to the sheet transfer.

   f. Check if the paper jam is still reported.

   g. Pull out the sheet transfer.

   h. Check the print drum in the print engine. Take out the top guide plate, and turn the print roller forward by hand to transport any paper that may still be inside.

Special Case:

When a paper jam occurs during a system shutdown or reset, the paper jam is only reported when the system is started again. During this time, the Info function is not available. If you cannot find the paper, do these steps:

1. Confirm the error message about five times. The main menu will appear.

2. Touch **i** to open the Info function.

3. Touch the modules in the graphic one at a time to find the locations.

Paper Jams in the Printer Section

Remove sheets that are jammed in the printer. The location and the number of sheets can be opened on the screen (touch **i** and touch the respective module in the graphic).

Assembly groups that must be pulled out of the printer to remove the jam do not have power applied. The printer will automatically be ready for printing again once you have removed the jammed sheets and either cleared the error message or initiated a reset.

Paper Jams in the Transport Unit

**CAUTION:** **If a paper jam occurs, always pull out the print engine first before pulling out the transport unit.**
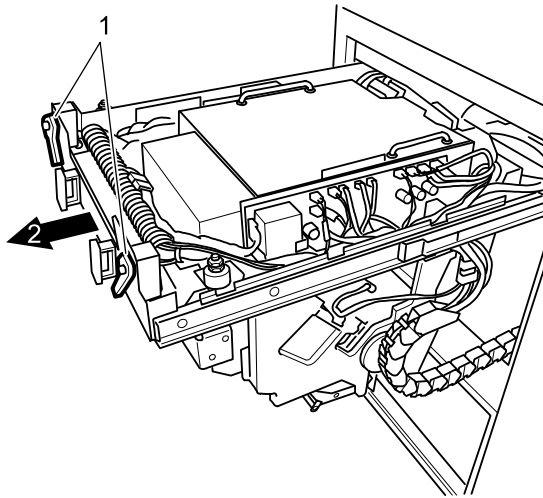
1. Open the left-hand side door.
2. Release the two locking levers (1) and pull the print engine (2) out on the telescopic rails.

Paper jams may occur in three positions in the transport unit:

- Paper transport at the bottom
- Paper transport at the top
- Sheet bridge

Transport Unit at the Bottom
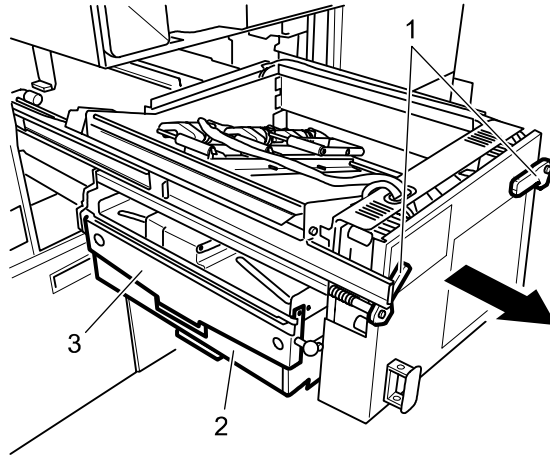
With the print engine pulled out:

1. Release the two locking levers (1) and pull the transport unit out on the telescopic rails.
2. Open the lever (2) and hold it against the unit as the bottom part of the transport releases.
3. Pull the flap (3) up and slowly lower the bottom part of the transport unit.
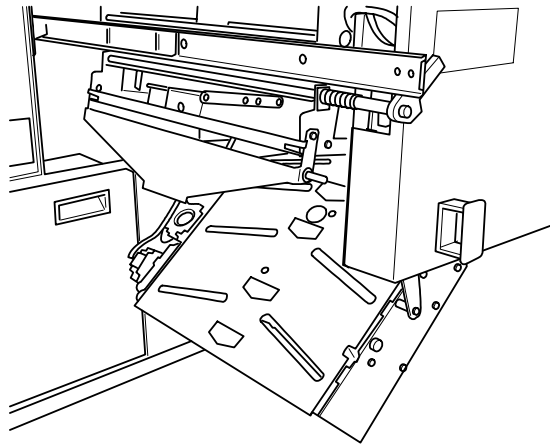
4. Remove the jammed paper from the paper transport.
5. Return the flap (3) to the operating position.

CAUTION: **The flap (3) must be flush to the side of the transport before you close the lever (2).**

Transport at the Top
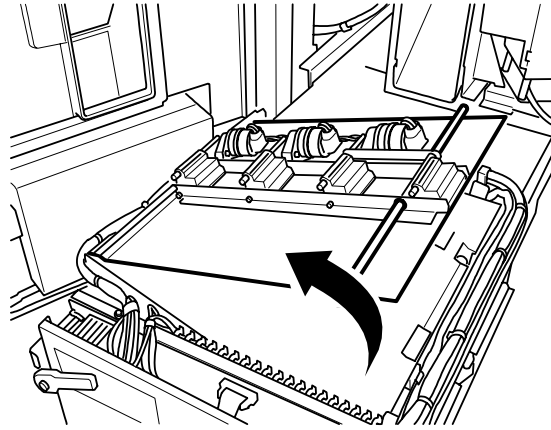
With the print engine and the transport unit pulled out:

1. Lift the top guide plate on the shafts marked in red, and fold it up.
2. Remove the jammed paper from the top of the paper transport.

Sheet Bridge to Transport Unit
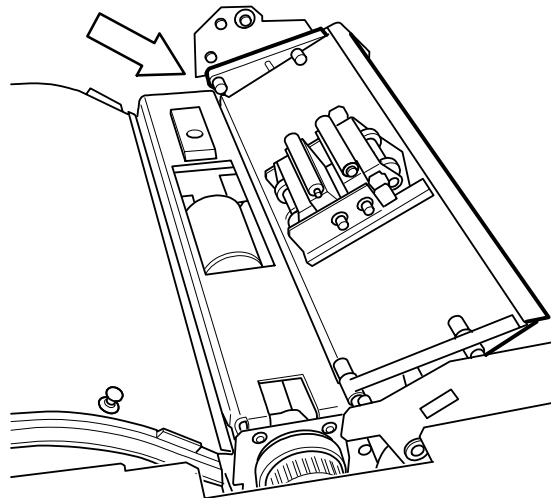
With the print engine and the transport unit pulled out:

1. Open the guide plate for the sheet transport and remove the paper.
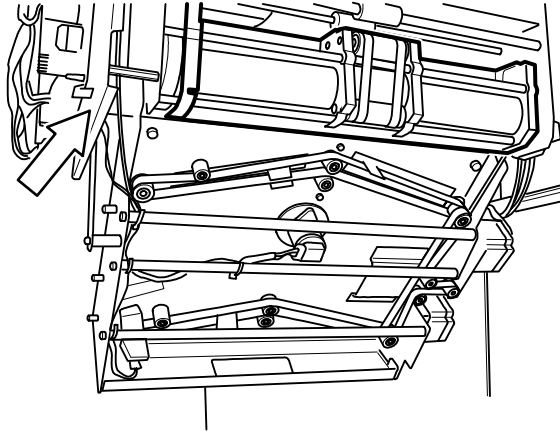
2. Turn the button (see arrow) on the sheet turnover and remove the paper

Transfer/Takeover Sections between Transport Unit and Print Engine
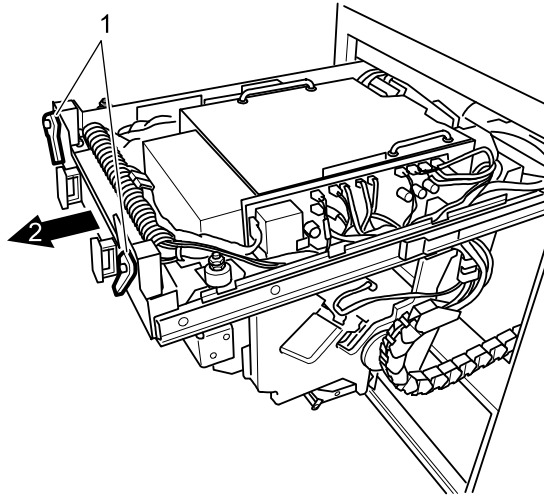
Always pull out the print engine first:

1. Open the left-hand side door.
2. Release the two locking levers (1) and pull the print engine (2) out on the telescopic rails.
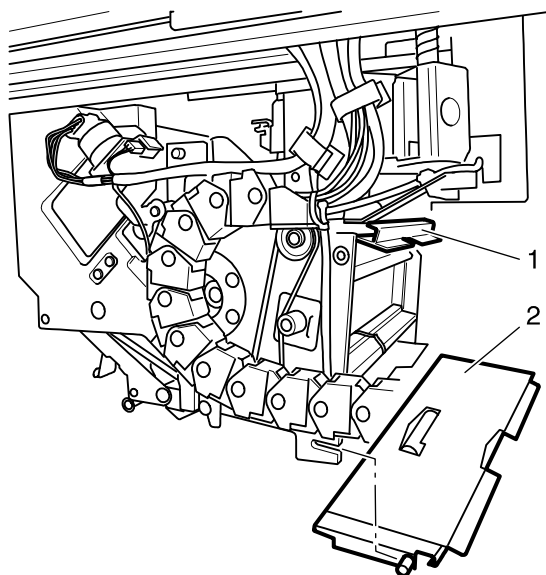
For paper jammed in the print engine:

1. Press the toggle on the upper guide plate (1) and remove the plate.
2. Pull down on the back of the lower guide plate (2) and remove the plate.
3. Remove the paper.
4. Reinsert both guide plates. (For the lower guide plate, insert at an angle and press firmly up and in until the plate locks in place.)

For paper jammed in the transport unit:

1. Leave the transport unit in the printer. Do not pull it out.
2. Remove the paper.

Paper Jams in the Print Engine
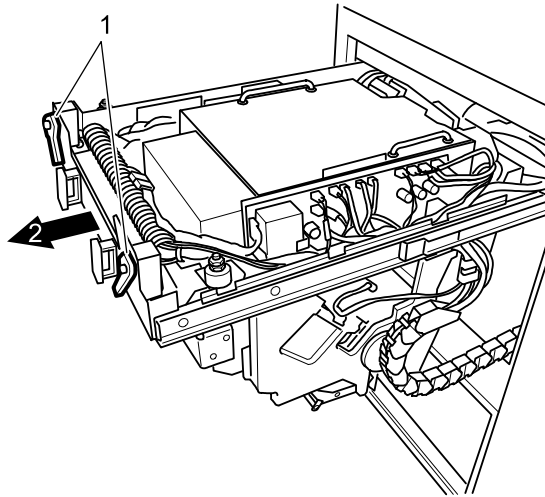
1. Open the left-hand side door.
2. Release the two locking levers (1) and pull the print engine (2) out on the telescopic rails.
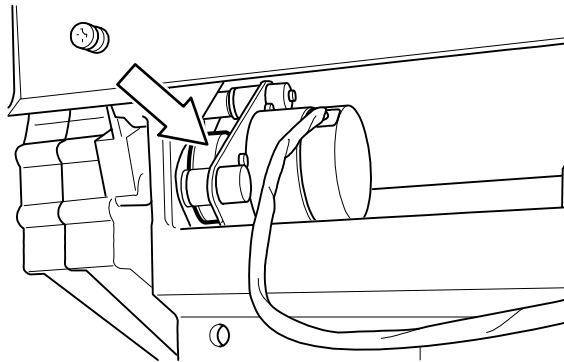
3. Turn the transport belt pulley of the stepper motor for the print drum.
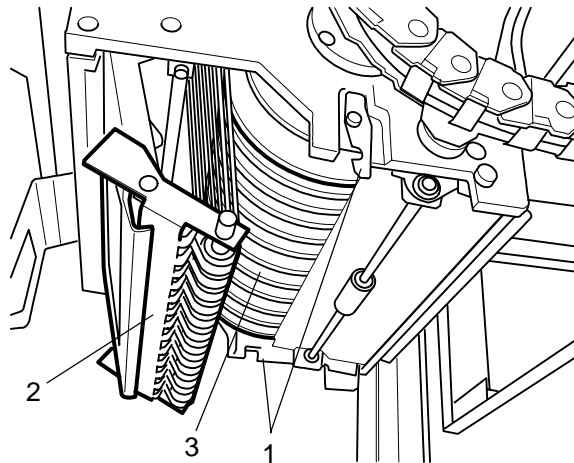
4. Release the two locking levers (1) and open the bottom belt assembly (2).

5. Remove the paper from the print roller (3).

6. Check that all belts of the lower belt assembly and the print drum are positioned correctly on the rollers.

7. Close the bottom belt assembly.

Paper Jams between the Transport Unit and the Lane Distributor
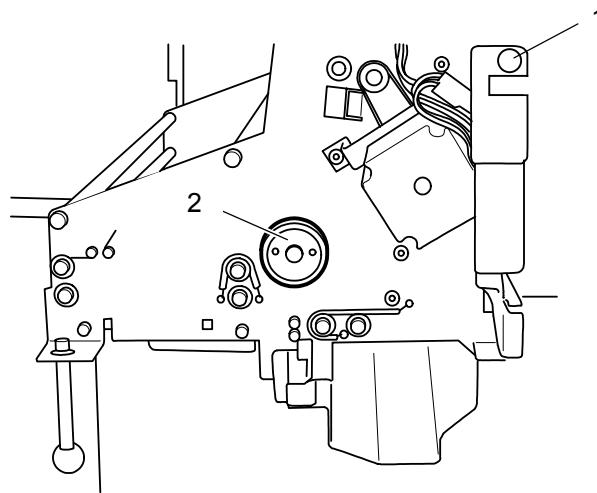
1. Open the right-hand printer door.

2. Loosen the red locking screw (1) and pull the lane distributor out on the telescopic rails.

3. Turn the hand wheel (2) at least 10 turns to advance the sheet into the lane distributor.
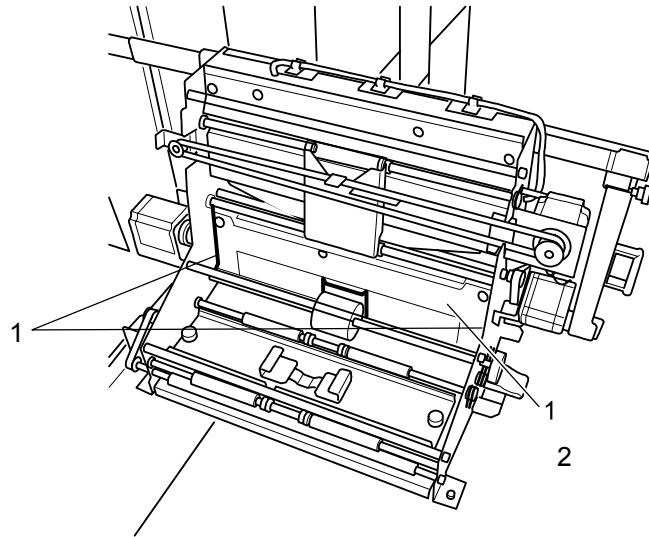
4. Release the quick-action locks (1) and remove the guide plate (2).

5. Remove the paper.

6. Install the guide plate. Check that it sits correctly in the holders and that the quick-action locks are locked.

Paper Jams in the Lane Distributor
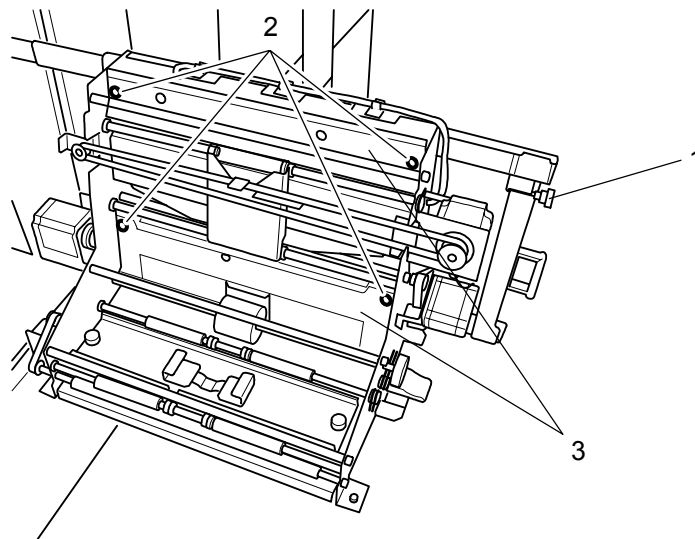
1. Open the right-hand printer door.

2. Loosen the red locking screw (1) and pull the lane distributor out on the telescopic rails.

3. Release the quick-action locks (2) and remove the guide plates (3).

4. Remove the paper.

5. Install the guide plates. Check that they sit correctly in the holders and that the quick-action locks are locked.

Paper Jams between the Lane Distributor and Sheet Transfer
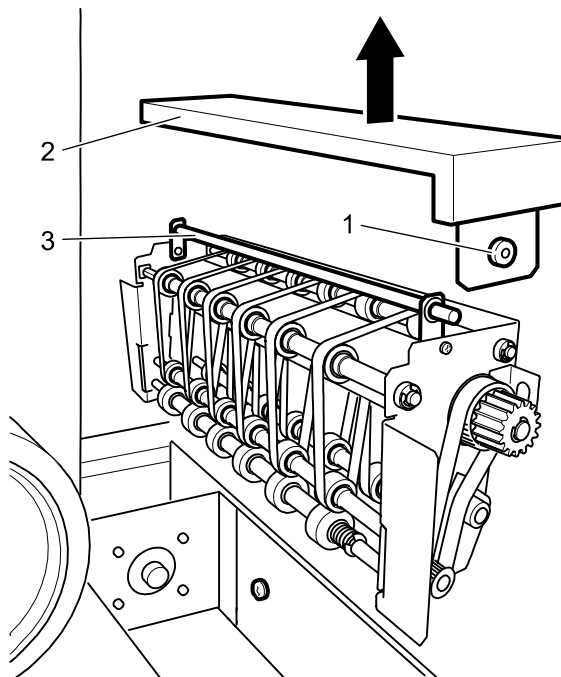
1. Open the front cabinet door.
2. Pull the red locking pin (1) and remove the sheet transfer cover (2).
3. Hold the sheet transfer by the handle (3) and lift it out of the printer.
4. Remove the paper.
5. Check that all belts are positioned correctly on the rollers.
6. Mount the sheet transfer cover by holding the latch in the open position and lowering the cover.

CAUTION: **If the paper is damaged (torn or squeezed) when it is pulled out, mechanical damage cannot be ruled out.**

Paper Jams in the Paper Processor

> **WARNING:** *Wear protective gloves and goggles during all operations when there is the potential to come in contact with chemicals.*

Do the following procedures from Chapter 8, *Maintenance*. Check for and remove any jammed paper during each procedure.

- *Opening and Closing the Wet Section Cover*
- *Removing the CD (Color Developer) Feed Unit*
- *Removing the Tank Crossovers*
- *Removing the Squeegee Unit and V Wiper*
- *Cleaning the Processing Racks* (do only the steps related to removing the SB1– SB4, BX, and CD racks)

Chapter 8 Maintenance

Contents

Maintenance Schedule and Maintenance Intervals

Daily	Weekly	Monthly	When required	Maintenance jobs to be performed by the customer
x				Clean APS film mask
x				Clean drive rollers in Film Feeder area
x				Perform process control on the paper processor
	x			Film mask: Remove dust
	x			Clean film take-up
	x			Clean film chute
	x			Transport unit: Remove paper dust
	x			Single sheet buffer and sheet bridge: Remove paper dust
	x			Print engine: Remove paper dust
	x			Lane distributor: Remove paper dust / deposits
	x			Sheet transfer to paper processor: Remove paper dust
	x			Paper processor: Clean tank crossovers
	x			Clean CD feed unit
	x			Clean squeegee and wiper unit (V wipers)
	x			Check solution levels – top off if necessary
	x			Clean chemical filters
	x			Clean filter in the ASTOR and water supplies
	x			Clean densitometer calibration plate
	x			Print chute: Clean transport belt
		x		Clean exposure filters
		x		Check solution temperatures

Daily	Weekly	Monthly	When required	Maintenance jobs to be performed by the customer
		x		Clean air filters – Lamp house – CCD fan – Below cutter units – Door to print engine – Paper processor: Right side wall, dryer, and AC supply
		x		Change scan lamp (service life approx. 300 hr)
		x		Change chemical filters
		x		Clean processing racks
		x		Clean dryer rack
		x		Clean paper outlet PO: – Clean / replace air filter – Clean slide plate with feed chute – Clean rubber transport belts
			x	Remove dust from lens
			x	Replace all air filters with the Annual Air Filter Kit
			x	Change back printer ink ribbon
			x	Empty effluent tanks

WARNING: **Observe the safety precautions on all equipment labels and in the Regulatory and Safety section of this manual.**

Do not clean while power is applied to the paper processor drive.

To prevent injury when working in the printer area, avoid contact with the toothed belts and any sharp corners or edges.

Daily Maintenance

Cleaning the APS Film Mask

Purpose:

To correctly detect magnetic data.

Necessary tools:

- KODAK PROFESSIONAL Magnetic Read Head Cleaner for SRP 30 (Catalog No. 190 8938)
- Isopropyl alcohol

CAUTION: **Use only isopropyl alcohol. Other cleaning agents will damage the rubber transport rollers TR4 and TR5 and dissolve the bonding of the cleaning strips.**

Dissolved glue will irreversibly contaminate the magnetic head.

Avoid spilling isopropyl alcohol on the surface of the printer because it could damage the paint. Wipe up any spills immediately.

WARNING: Isopropyl alcohol is a flammable liquid. It can cause eye irritation and dry skin. Wash hands with soap and water following maintenance procedures. See the manufacturer's Material Safety Data Sheet (MSDS) for additional safe handling and first aid information.

Clean the magnetic head every day so that possible deposits cannot dry and make the cleaning more difficult.

1. Check that the APS film mask is inserted.

2. Touch:
    - **Print mode**
    - **Manual positioning**
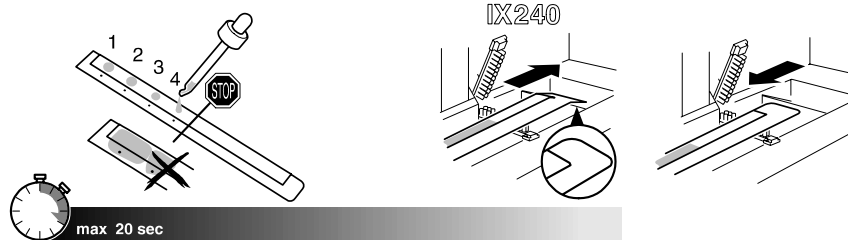
IMPORTANT: *Do Step 4 within 20 seconds of Step 3 to avoid evaporation of the isopropyl alcohol.*

3. Apply four drops of isopropyl alcohol to the read head cleaner with an eye dropper as illustrated.

4. Insert the read head cleaner into the film feeder dry side first so that it dries the magnetic head when it is ejected.

    The printer pulls in the read head cleaner into the film mask the same as with film.

5. Touch **Eject** on the **Manual positioning** screen.

   The printer ejects the read head cleaner back through the film feeder, then performs a scanner pixel calibration (PIKO).

6. Repeat Steps 2–5 two more times.

Cleaning the Drive Rollers in the Film Mask
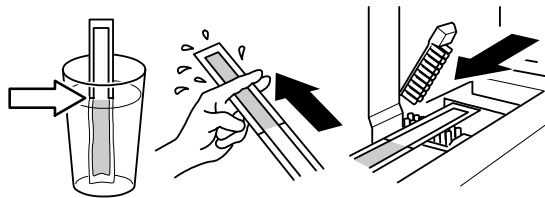
Purpose:

To prevent film transport malfunctions by removing the deposits from the drive rollers in the film mask.

Necessary tools:

- KODAK PROFESSIONAL Film Drive Roller Cleaner for SRP 30 (Catalog No. 813 4165).

Primary Procedure

1. Touch:
   - **Print mode**
   - **Manual positioning**

2. Dip the roller cleaner in water and remove the excess water with your fingers.

3. Insert the roller cleaner into the film feeder.

   The roller cleaner is pulled into the film mask the same as with film. The message **Preview image is being calculated** appears.

4. When the message disappears, touch **Eject** on the **Manual positioning** screen.

   The printer ejects the roller cleaner into the film box and performs a scanner pixel calibration (PIKO).

5. Repeat Steps 1–4 until both rollers are free of deposits.

Or see the alternate procedure on the next page.

Alternate Procedure

1. Touch:

    - **End of work**
    - **Shutdown**
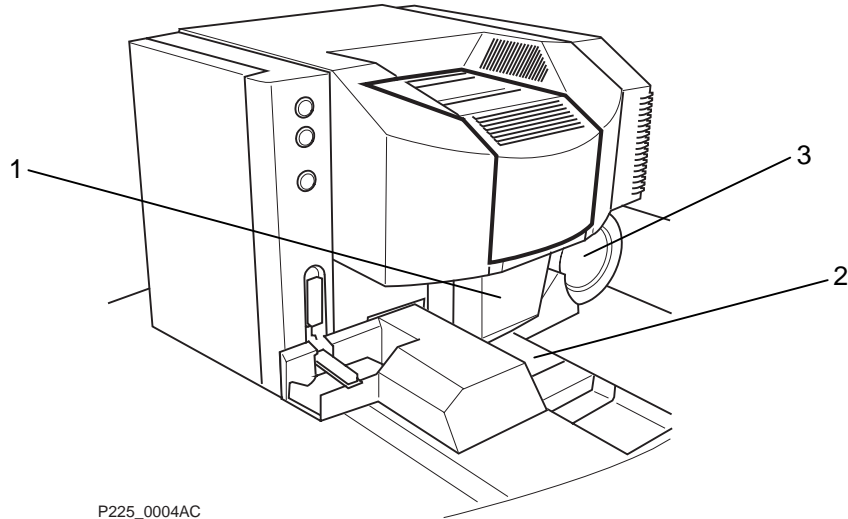
P225_0004AC

2. When the shutdown sequence is complete, remove the mirror box (1), film mask (2), and film take-up (3).
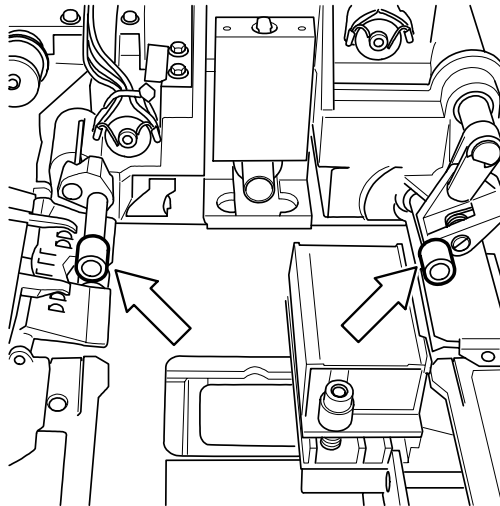
3. Turn the four drive rollers by hand and clean them with water and a lint-free cloth.

NOTE: Two rollers are located below the two that are shown.

# Performing a Process Control for the Paper Processor

Purpose:

To monitor and correct (if necessary) the performance of the paper processor.

Before you begin:

- Check that the nominal processing temperatures of the solutions have been reached.
- Check that there are no orders in process.

Necessary tools:

- KODAK PROFESSIONAL Pro Strips for Process RA-4 (Catalog No. 129 8587)
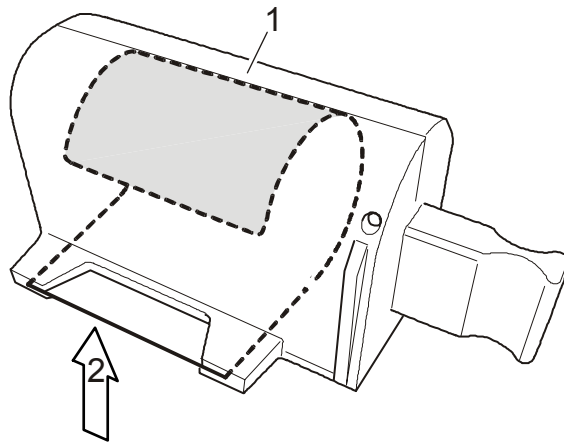
1   Control strip box
2   Emulsion side / photographic layer

1. Unlatch and remove the control strip box (1) from the lane distributor.

2. In the darkroom, insert a control strip (pro strip) into the control strip box.

    - With the handle of the control strip box to the right and the emulsion side (2) down, insert the trailing end of the control strip. (The end that comes out of the control strip bag last goes in first.) The end of the control strip should be flush to the end of the box.
    - If you accidentally insert the control strip upside down (the emulsion is on top), the processed control strip usually shows typical dirt marks.

3. Touch:
    - **Test**
    - **Control strip**
    - **Chemical control strip**

    You receive a prompt to insert the chemical control strip.
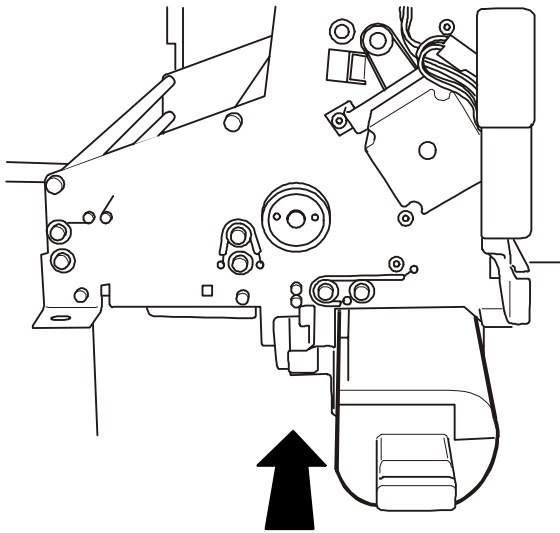
4. Place the control strip box in the holder provided in the lower part of the lane distributor.

5. Close the printer door and touch:
   - **Continue** (to transport the control strip into the paper processor), or
   - **Cancel** (to terminate the operation)
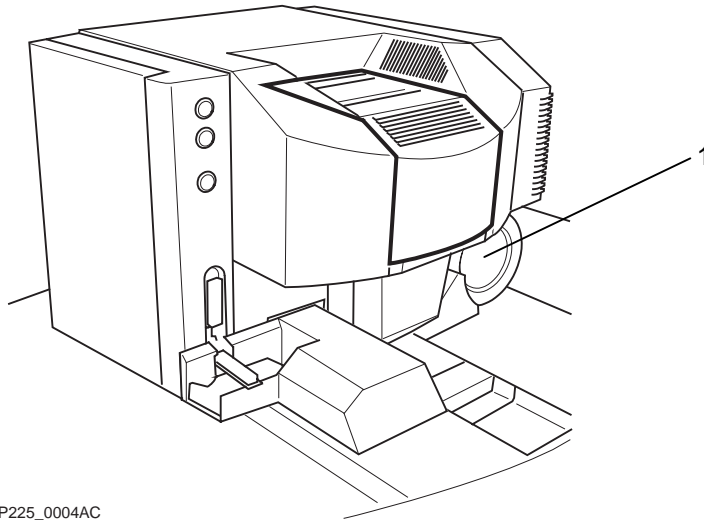
6. Evaluate the process control strip.

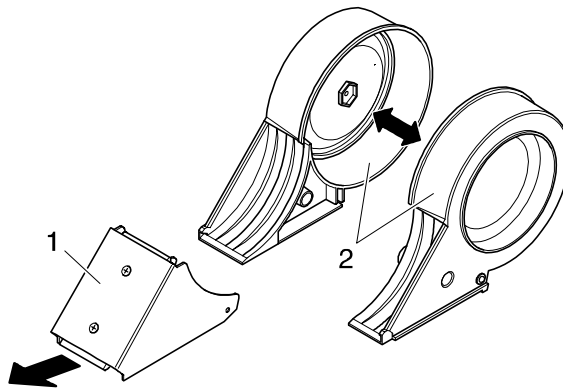# Weekly Maintenance

Removing Dust from the Film Mask

Clean the film mask with compressed air.

Cleaning the Film Take-Up

Purpose: To remove dust and film abrasions that are deposited on the inserted films, which may have a negative impact on the print result.

P225_0004AC

1. Remove the film take-up (1).

2. Open the film take-up. Pull the metal clip (1) to the front and separate both parts (2).

3. Remove dust and film abrasions with a lint-free cloth.

4. Close and reinstall the film take-up.

Cleaning the Film Chute
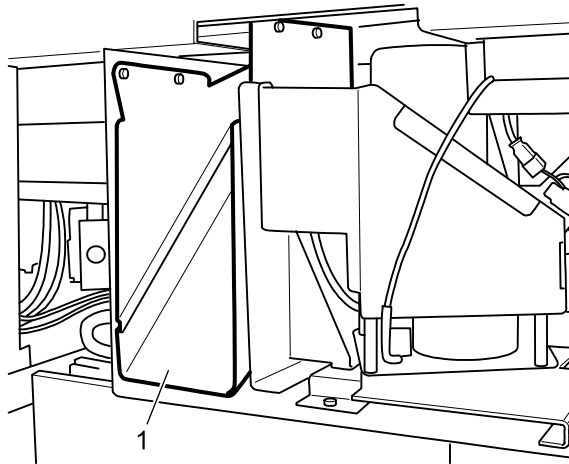
1. Open the front printer door.
2. Remove the dust from the film chute (1) with a lint-free cloth.

Removing Paper Dust from the Printer Sections

Necessary tools:

- Vacuum cleaner
- Small brush
- Isopropyl alcohol for plastic-coated and rubber rollers
- Compressed air

WARNING: *Isopropyl alcohol is a flammable liquid. It can cause eye irritation and dry skin. Wash your hands with soap and water following maintenance procedures. See the manufacturer's Material Safety Data Sheet (MSDS) for additional safe handling and first aid information.*

Transport Unit
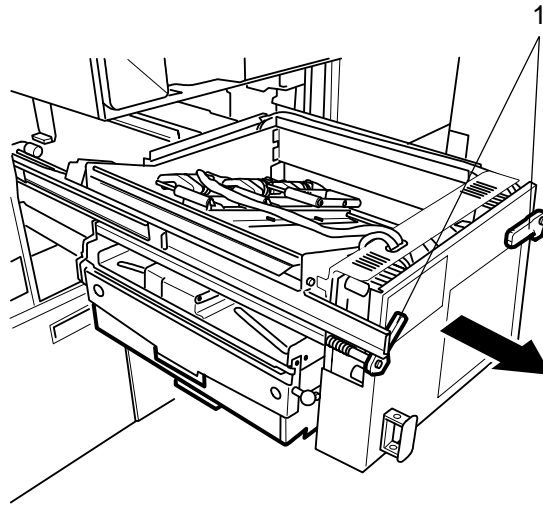
1. Release the two locking levers (1) and pull the transport unit out on the telescopic rails.

2. Open the transport unit.

3. Remove the paper dust with a vacuum cleaner.

4. Clean the sensors with a small brush.

5. Clean the transport rollers with isopropyl alcohol and a lint-free cloth.

6. Push in the transport unit and lock it.

Single Sheet Buffer and Sheet Bridge

1. Unlock the transport unit and pull it out on the telescopic rails.
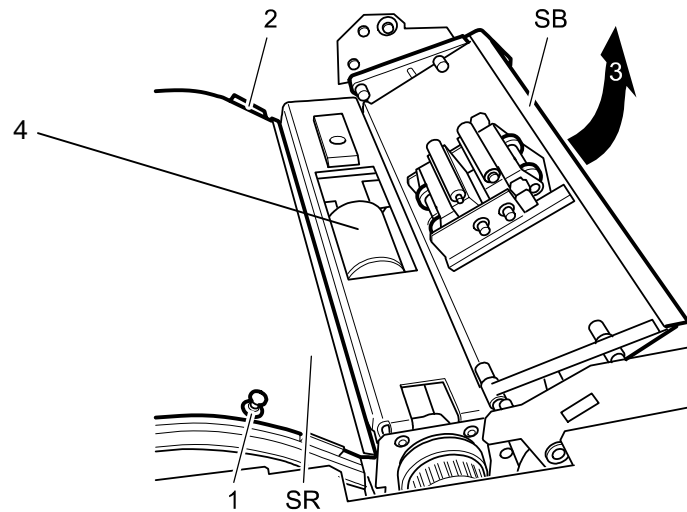
2. Pull up on the quick-action lock (1). Pull the cover plate of the single sheet buffer (SR) slightly to the front and remove it.

3. Remove the paper dust from the single sheet buffer with a vacuum cleaner.

4. Push the cover plate of the single sheet buffer into the holding brackets (2) at the back, and fasten it at the front by snapping in the quick-action lock.

5. Hold the sheet bridge (SB) on the right side and fold it open to the left (3).

6. Remove the paper dust from the sheet bridge with a vacuum cleaner.

7. Set the sheet bridge back to its initial position and snap it into the locked position.

8. Clean the large roller (4) and the two smaller rollers on the sheet bridge with isopropyl alcohol and a lint-free cloth.

9. Push in the transport unit and lock it.

Print Engine
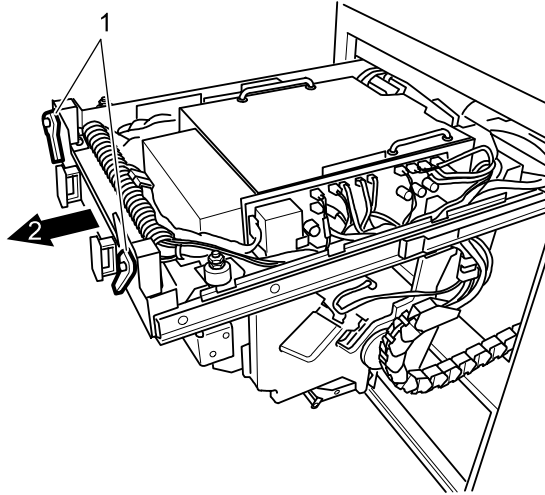
1. Release the two locking levers (1) and pull the print engine (2) out on the telescopic rails.
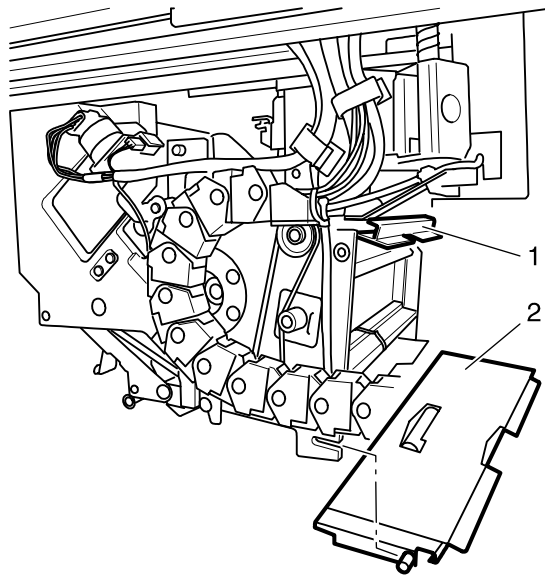

2. Press the toggle on the upper guide plate (1) and remove the plate.

3. Pull down on the back of the lower guide plate (2) and remove the plate.

4. Remove the paper dust from the print engine and both guide plates with a vacuum cleaner.

5. Reinsert both guide plates. (For the lower guide plate, insert at an angle and press firmly up and in until the plate locks in place.)
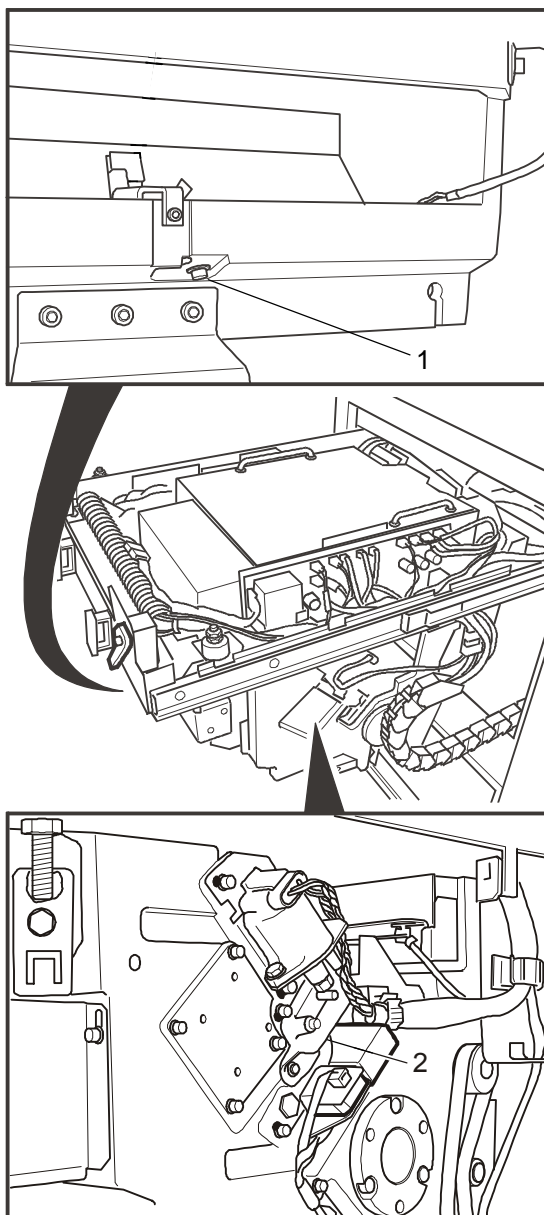
6. Clean the light sensors with a brush or compressed air spray:

- Beginning of Page – BOP (1): Paper tip detection
- Beginning of Line – BOL (2): Start of exposure (accessible from outside)

NOTE: You can also access the BOP sensor from underneath the print engine by opening the bottom belt assembly. (See Step 7.)
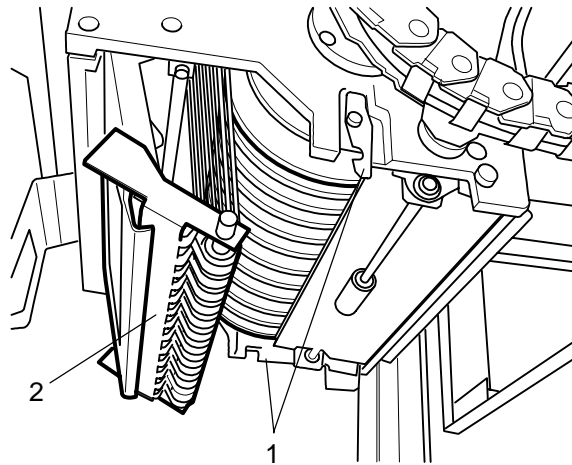
7. Release the two locking levers (1) and open the bottom belt assembly (2).

8. Remove the paper dust with a vacuum cleaner.

9. Check that the belts are positioned correctly on the rollers.

10. Close the bottom belt assembly.

Lane Distributor

WARNING: *Be careful to avoid risk of injury caused by the toothed belts that may be exposed in the marked area.*

Purpose: To avoid transport problems.
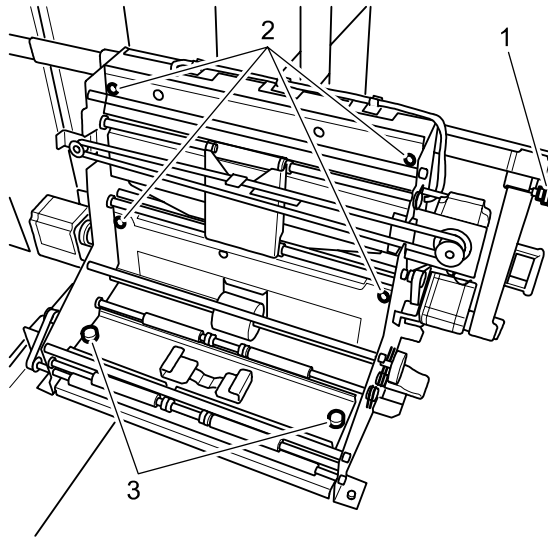
1. Loosen the red locking screw (1) and pull the lane distributor out on the telescopic rails.

2. Remove the paper dust with a vacuum cleaner.

3. Release the quick-action locks (2), loosen the knurled screws (3), and remove the guide plates.

4. Clean all guide plates with water and a lint-free cloth.

5. Install the guide plates. Check that they sit correctly in the holders and that the quick-action locks are locked.

6. Clean the transport rollers with isopropyl alcohol and a lint-free cloth.

7. Push in the unit and tighten the locking screw.

8. Vacuum the inside of the cabinet.

Sheet Transfer
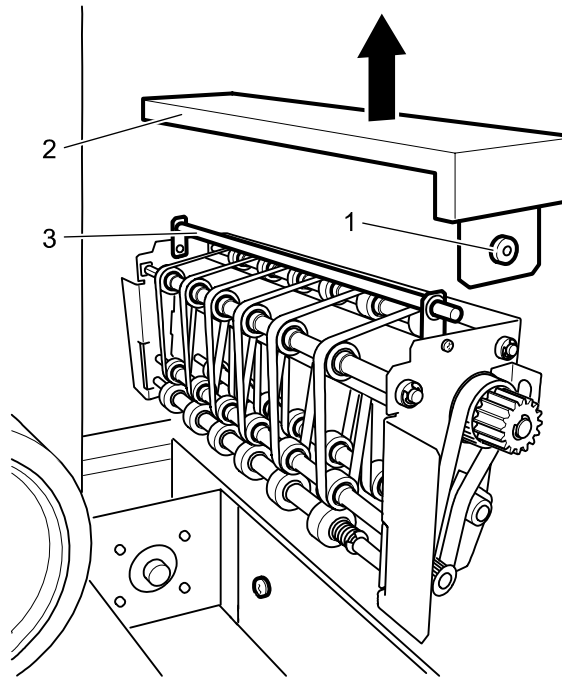
1. Open the front cabinet door.

2. Pull the red locking pin (1) and remove the sheet transfer cover (2).

3. Hold the sheet transfer by the handle (3) and lift it out of the printer.

4. Set down the sheet transfer.

5. Remove the paper dust from the sheet transfer with a vacuum cleaner.

6. Clean the rollers and transport belts with isopropyl alcohol and a lint-free cloth.

7. Check that the belts are positioned correctly on the rollers.

8. Install the sheet transfer.

9. Mount the sheet transfer cover by holding the latch in the open position and lowering the cover.

Cleaning the CD Feed Unit, Tank Crossovers, and Squeegee Unit

Safety Precautions for Cleaning Operations

WARNING: *Wear protective gloves and goggles during all cleaning operations when there is the potential to come in contact with chemicals.*

Cleaning Preparations

- Schedule one a day a week for cleaning the CD feed unit, tank crossovers, and squeegee and V wiper.
- Remove the components the night before the scheduled cleaning. (See the removal procedures that follow.) Let the components soak overnight in a lab basin filled with water.
- Disable the automatic printer startup function for the scheduled cleaning day. (See *Defining Times for Startup, Shutdown, and Sleep Mode* in Chapter 4.) Starting up the printer with the components removed might cause errors.

NOTE: The day you select for cleaning depends on your particular lab operation. For example, if your lab is closed during the weekend, you might want to schedule Monday for cleaning and make the preparations on Friday.

Necessary tools:

- Splash guard for the front of the paper processor (supplied with the printer pre-pack)
- Soft brush
- Lint-free cloth

Opening and Closing the Wet Section Cover

WARNING: *A risk of injury is possible if the wet section cover is unlocked unintentionally (when PUSH is pressed).*

- *When opening the cover:*
  Check that the cover lock fully engages in vertical position.

- *When closing the cover:*
  Support the cover with one hand. Press the unlocking lever (PUSH), and close the cover.
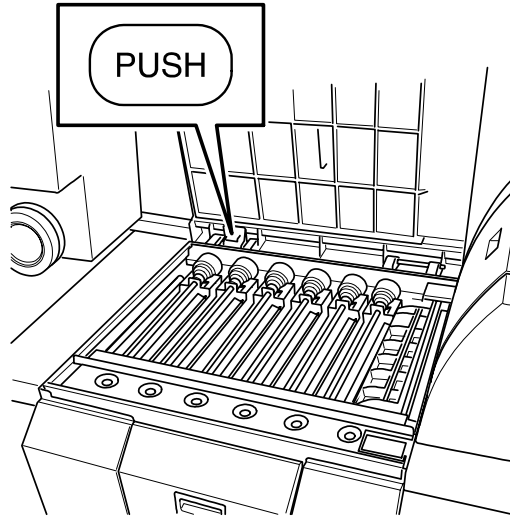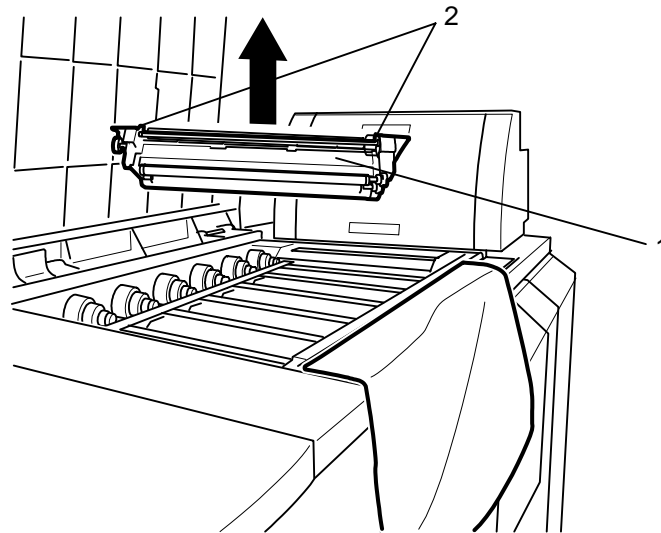

Removing the CD (Color Developer) Feed Unit
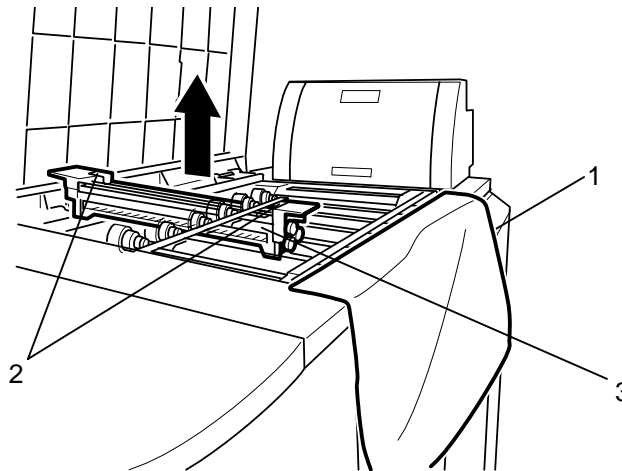
1. Fasten the splash guard (1) to the front of the paper processor to protect the area from chemical splashes.

2. Release the tabs (2) and grasp the CD feed unit (3). Remove the unit, and put it in the lab basin.

Removing the Tank Crossovers

NOTE: There are five tank crossovers. Do these steps working from left to right.

1. Grasp each tank crossover (1) by the tabs (2).

2. Remove and put each crossover in the lab basin.

CAUTION: **To avoid damage to the rollers and paper guide surfaces, do not stack the crossovers.**

Removing the Squeegee Unit and V Wiper
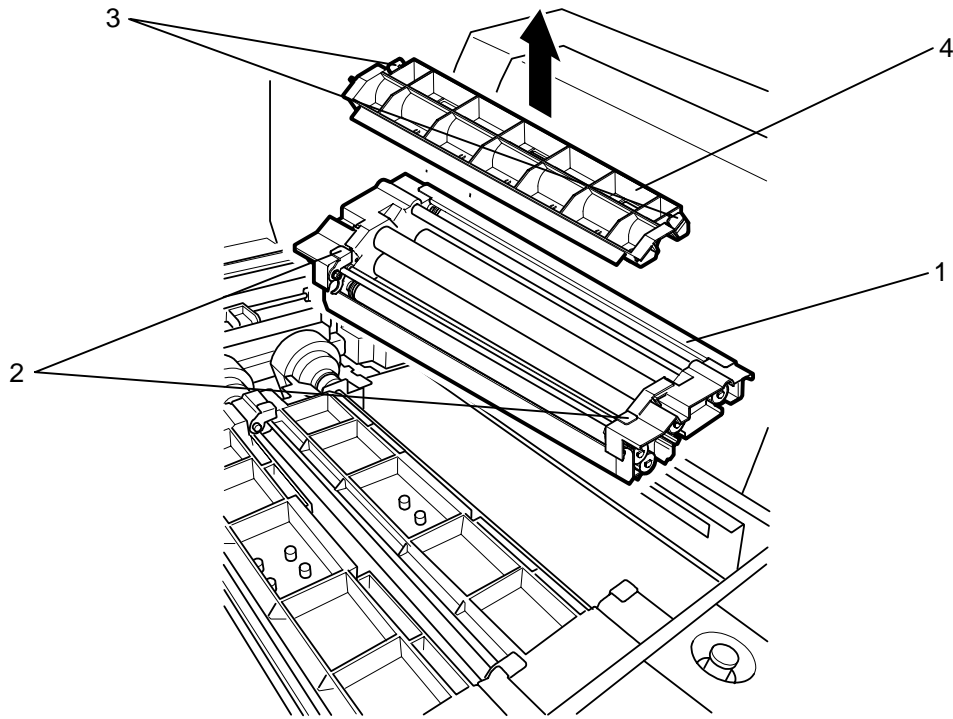
1. Grasp the squeegee unit (1) by the tabs (2) and remove it.
2. Press the side tabs (3) and lift the V wiper (4) out of the squeegee unit.
3. Put both parts in the lab basin.
4. Close the wet section cover.

Cleaning Procedure

Clean the CD feed unit, tank crossovers, and the squeegee unit and V wipers at the beginning of the scheduled cleaning day.

1. Clean the CD feed unit and tank crossovers.
    a. Clean the rollers with a soft brush.
    b. Clean the paper slide surfaces with a lint-free cloth.
    c. Rinse thoroughly in running water.
2. Clean the squeegee unit and V wipers.
    a. Clean the rollers of the squeegee unit with a soft brush.

CAUTION: **Do not damage the wiper edges of the V wiper. Check for damage.**

    b. Clean the paper slide surfaces of the squeegee unit and V wiper holder with a lint-free cloth.
3. Mount the V wiper holder in the squeegee unit. Check that it locks into place.

IMPORTANT: *Observe the attached color markings and numbering when reinstalling the tank crossovers and the squeegee unit. Check that the latches of the units lock in and are flat against the housing.*

4. Reinstall, the squeegee unit, the crossovers, and the CD feed unit.

Checking the Solution Levels

Purpose:

To compensate for evaporation (also required with the automatic evaporation compensation).

Do this procedure once a week before starting production. The best time is when you do the weekly cleaning of the CD feed unit, tank crossovers, and squeegee unit. (See Page 8-19.)

1. With the CD feed unit, tank crossovers, and squeegee unit removed, check the solution levels in the paper processor. The solution levels should just cover the tops of the processing racks.

2. Replenish with water if necessary.

If the level drops considerably and consistently:

1. Adjust the settings of the water replenishment to the required level. (See *Setting the Replenishment Rates* in Chapter 4.)

2. Replace defective level switches (service technician).

3. Search for leaks (service technician).

WARNING: *The risk of fire exists if the level switches become defective. Have defective level switches replaced immediately. Do NOT attempt to repair them.*

Cleaning the Chemical Filters

Purpose:

To ensure uniform circulation of the processing solutions by regularly cleaning the filters.
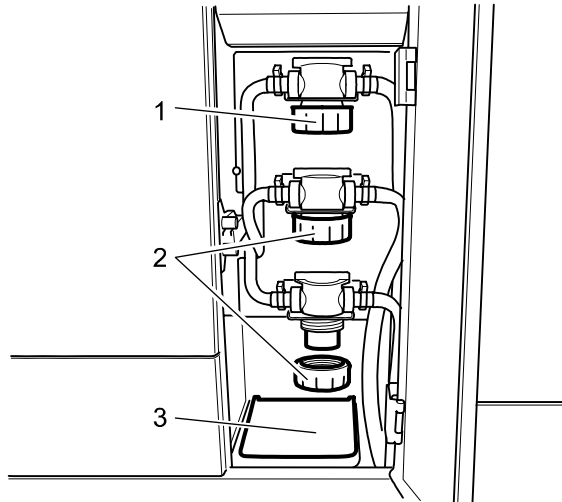
Necessary tools:

- Soft brush
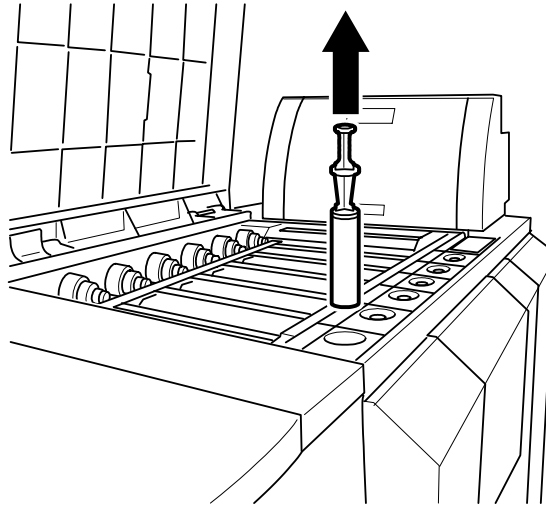
1. Remove the chemical filters and clean them with warm water and a soft brush.

2. Reinstall the chemical filters in the color-marked order.

Cleaning the Filters in the ASTOR and Water Supplies

IMPORTANT: *Close the water tank cover (3) before beginning this procedure.*

1   ASTOR supply
2   Water supply

1.   Close the drain valves on the top of the 3 supplies.

2.   Unscrew the cap nuts (1 and 2) and carefully remove them.

NOTE: The cap nuts are full of liquid.

3.   Remove the filters and rinse them in running water.

4.   Reinstall the filters.

IMPORTANT: *Do not interchange the ASTOR filters with the water filters.*

5.   Open the drain valves again.

Cleaning the Densitometer Calibration Plate

The densitometer is mounted in the paper outlet.
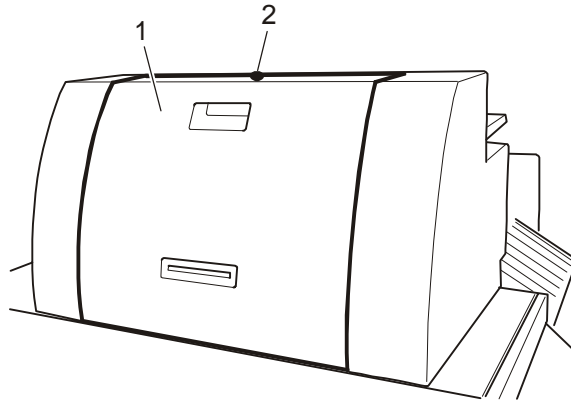
1. Remove the screw (2) and remove the front cover of the paper outlet (1).
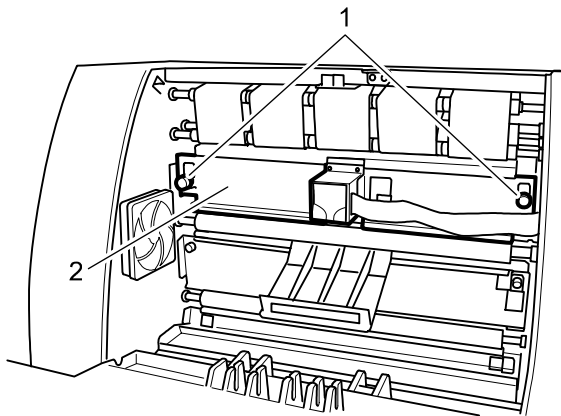
2. Loosen the knurled screws (1) on the right and left side on the guide plate of the densitometer unit.

3. Turn the densitometer (2) over and clean the calibration plate with water and a lint-free cloth.

4. Clean the guide plates with water and a lint-free cloth.

5. Fasten the densitometer unit again with the knurled screws.

6. Fasten the cover of the paper outlet.

CAUTION: **Have a service technician replace any damaged calibration plates.**

Cleaning the Transport Belt of the Print Chute
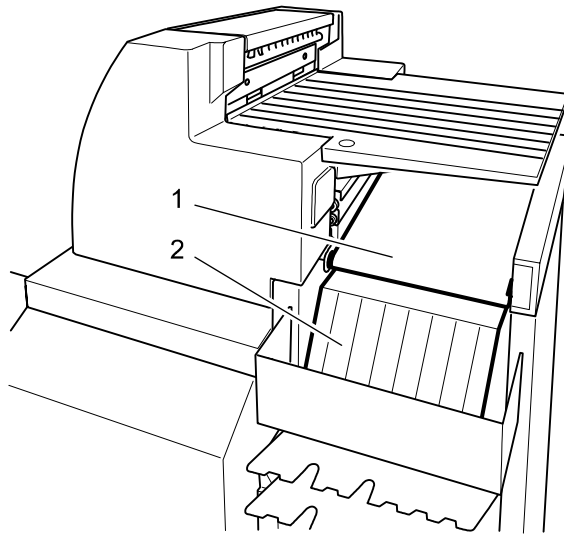
1. Clean the transport belt (1) with water and a lint-free cloth.
2. Wipe the print chute (2) with water and a lint-free cloth.

Monthly Maintenance

Cleaning the Exposure Filters

Depending on the ambient conditions (dust, fumes etc.), you might have to clean the exposure filters.
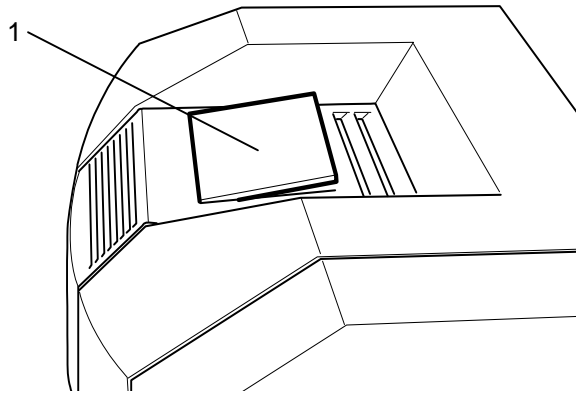
Necessary tools:

- Compressed air
- Spray tube
- Optical cloth or pads

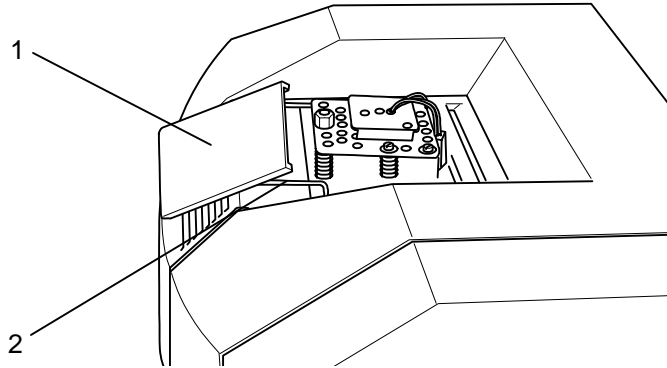*WARNING:*   ***Doing this procedure with the printer powered on could expose you to dangerous voltage.***

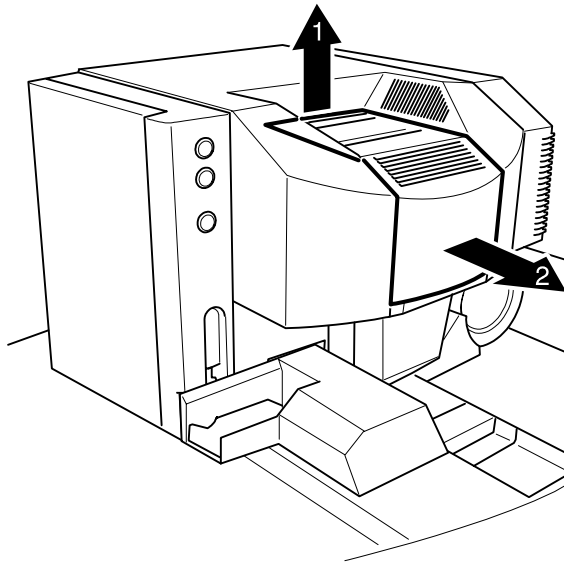   ***The lamp and the lamp house get very hot.***
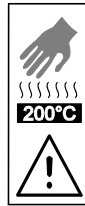
1. Shut down the printer (touch **End of work / Shutdown**).

2. Wait a few minutes to let the lamp cool.

3. Push the lamp house cover (1) slightly to the front until it snaps open.

4. Remove the lamp house cover (1) from the metal bracket (2).

5. Lock the lamp opening mechanism with the black lever located on the left side of the lamp house.

6. Lift the filter cover slightly (1) and pull it out towards you (2). This provides access to the exposure filter wheel.

CAUTION: **When cleaning the very thin and highly fragile glasses of the exposure filters (1), support them carefully from below so that they do not break.**

To avoid fingerprints, do NOT touch the filter glasses with your bare hands.
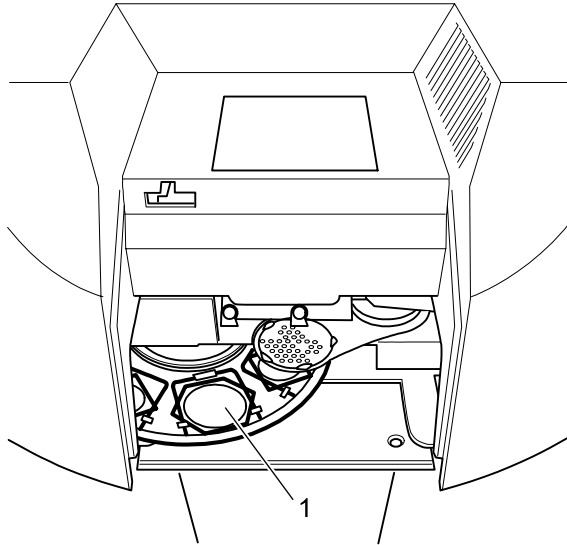
7. Remove the dust with compressed air and a spray tube.

8. If the filters are very dirty, clean them carefully with an optical cloth or with optic pads.

After cleaning the filters:

9. Reinstall the filter cover.

10. Release the black lever holding the lamp opening mechanism.

11. Attach the lamp house cover to the metal bracket and close the cover.

12. Start up the printer (press the **ON** key on the scanner).
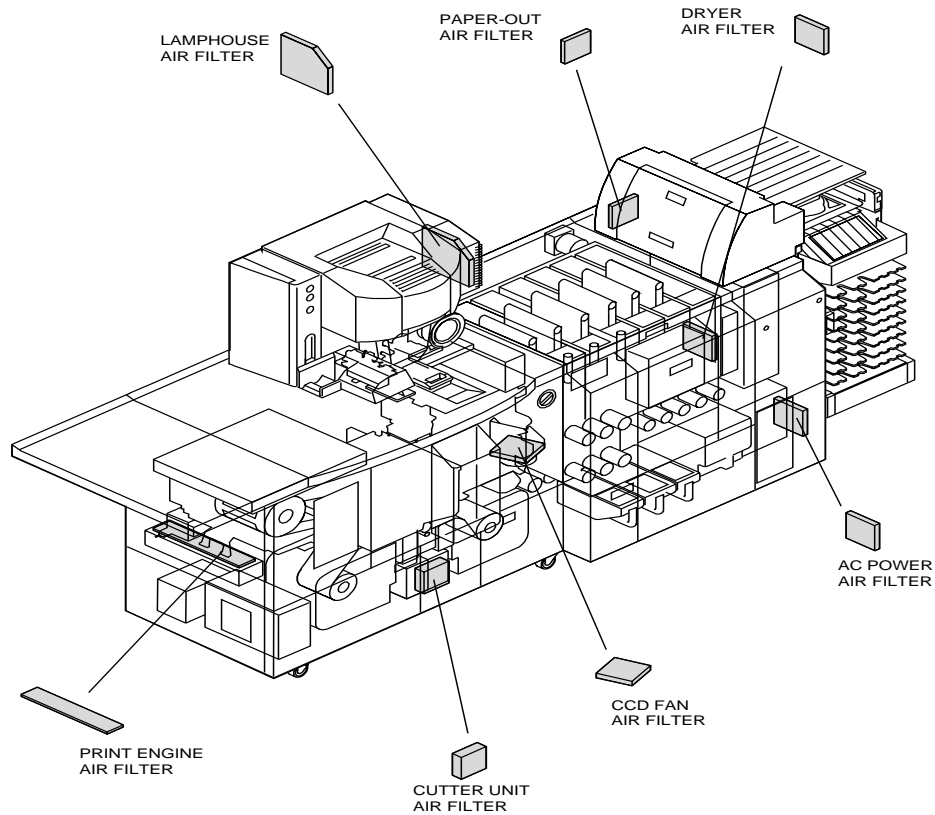
Cleaning / Replacing the Air Filters

CAUTION: **Let washed filters and filter mats dry thoroughly before reinstalling them.**

Do not wring, bend, or press the filters and filter mats.

Do not let filters and filter mats dry in the sun.

Necessary tools:

• Compressed air

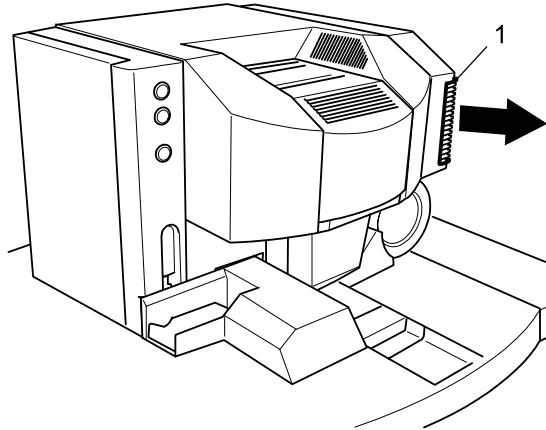• KODAK PROFESSIONAL Annual Air Filter Kit, Catalog No. 849 3678

P225_0001EC

Replace all air filters once per year with the Annual Air Filter Kit.

NOTE: Lab conditions and total operating time have an impact on the useful life of the air filters. Filters may have to be changed on a more frequent basis.

Lamp House

1. Grasp the venting grid (1) on the front cover and push it to the right. Pull the grid forward and remove it from the lamp house.

2. Remove the filter and remove dust with compressed air or wash it in water.

3. Reinstall the filter:

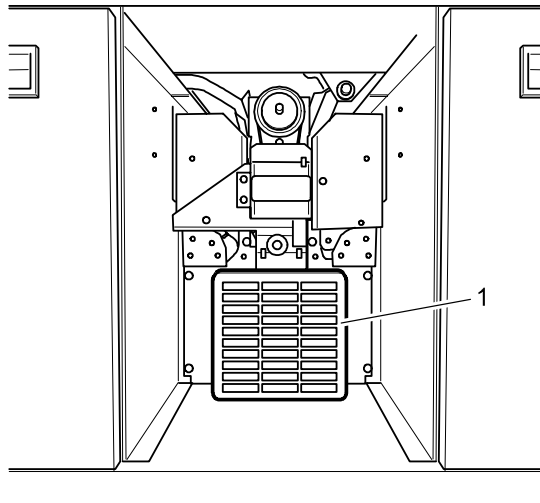4. Close the venting grid and check that it locks in securely.

CCD Fan
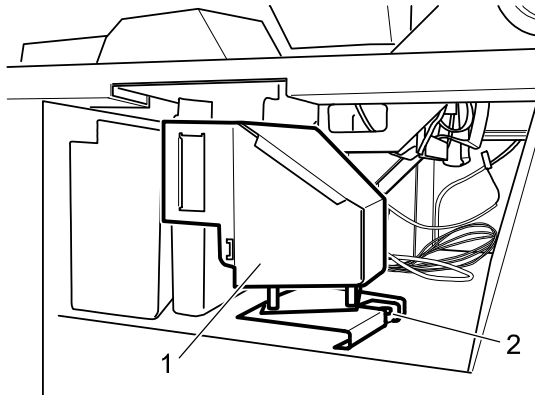
The CCD (1) fan pulls air in through the film chute and circulates it to the electronic component area.

1. Loosen the knurled screw (2).

2. Remove the cover.

3. Wash the filter mat in water.

4. Reinstall the filter mat.

Under the Cutter Unit

1. Remove the cover (1).

2. Wash the filter mat in water.

3. Reinstall the filter mat.

NOTE: Observe the correct position. The smooth side should point to the grid.

4. Mount the cover.

Door to the Print Engine

NOTE: The filter is mounted on the housing of the exposure gap fan on the inside of the print engine door. The filter holder is fastened to the housing by 2 black locking screws (1).
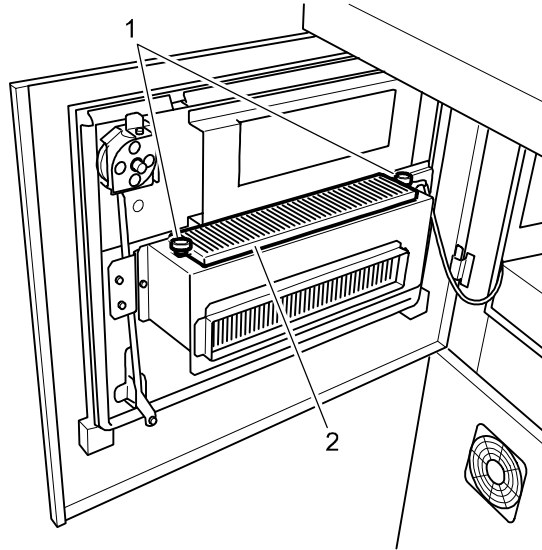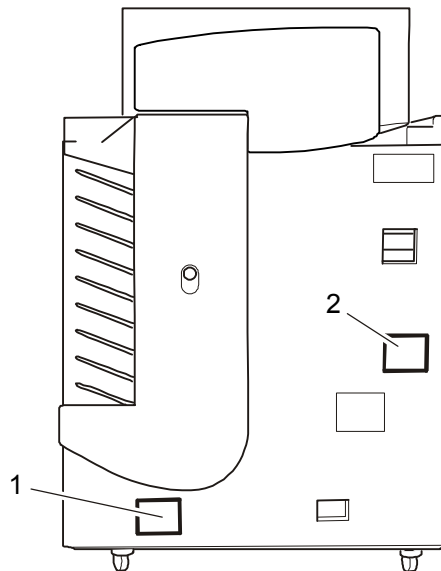

1. Loosen the locking screws (1) and remove the filter holder (2).

2. Wash the filter mat in warm water.

CAUTION: **Do not bend or wring the filter mat. Broken fibers may be blown into the print engine.**

3. Remove all water and insert the dry filter mat in the filter holder.

4. Fasten the filter holder.

Right-hand Side Wall, Dryer and AC Power Supply of the Paper Processor

NOTE: The air filters 1 and 2 are mounted in holders of perforated metal.

1. Remove the holders by lifting them by the handles and pulling them out to the front.

2. Remove dust from the air filters from the inside with compressed air, or wash them in warm water.

3. Put the air filters in the holders and reinsert the holders.
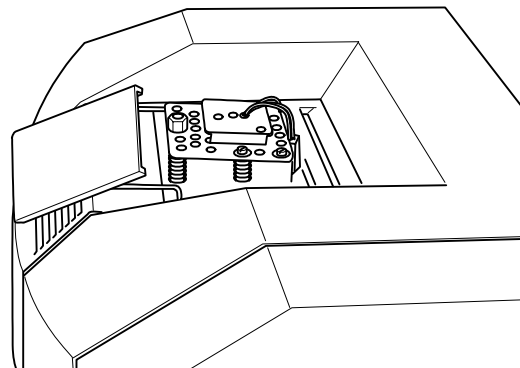
Changing the Scan Lamp

Necessary tools:

- Lint-free cloth

*WARNING:* ***The lamp and the lamp house get very hot.***
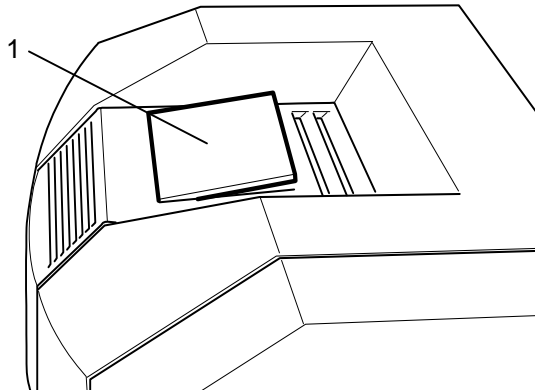
1. Push the lamp house cover (1) slightly to the front until it snaps open and the lamp is switched off.

2. Wait a few minutes to let the lamp cool.

3. Open the lamp house cover fully. It opens to the front and locks into the rods of the holder.

CAUTION: **Do not bypass the lamp switch when the lamp mount is folded up. The light falling straight down will damage the filter paddles.**
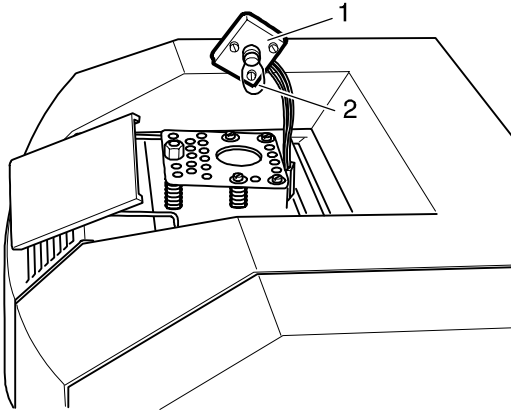
4. The lamp mount (1) is secured to the holder by magnets. Pull the lamp mount (1) out of the holder and remove the old lamp with a clean cloth.

5. Check the lamp socket (2).

    a. If the lamp socket or the contacts show burning stains caused by heat, this indicates contact problems that may have a negative impact on the print result.

    b. If required, have the lamp socket replaced by a service technician.

CAUTION: **To avoid fingerprints, do not touch the lamp with your bare hands. Use the protective foil that comes with the lamp or a lint-free cloth.**

6. Install the new lamp in the lamp mount.

Changing the Chemical Filters

> *WARNING:* **Wear protective gloves and goggles during all cleaning operations when there is potential to come in contact with chemicals.**
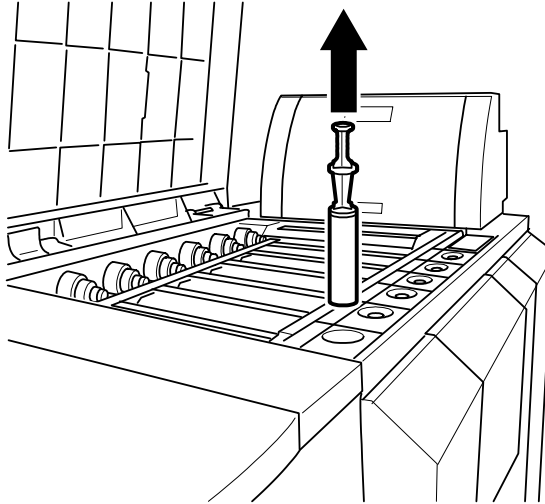
1. Open the wet section cover. (For important safety information, see *Opening and Closing the Wet Section Cover* on Page 8-20.)

2. Remove the six chemical filters and put them in a lab tray.

3. Pull the used filter cartridges off the shaft and install the new filter cartridges.

    Dispose of the filters by following procedures specific to your lab. See *Disposal of Chemicals and Containers* in *Regulatory and Safety Information*.

4. Rinse the filters in water to remove loose fibers.

5. Reinstall the chemical filters in the color-marked order.

Cleaning the Processing Racks

Purpose:

To ensure optimum processing quality.

Necessary tools:

- Splash guards for the CD rack and front of the paper processor (supplied with the printer pre-pack)
- Soft brush
- Lint-free cloth

Prerequisites:

- Schedule the monthly cleaning of the processing racks for a day when you are also cleaning the CD feed unit, tank crossovers, and squeegee unit.
- Clean the CD feed unit, tank crossovers, and squeegee unit first. (See Page 8-19 for instructions.)
- Before you reinstall those components, do the steps below to clean the processing racks.

WARNING: *Wear protective gloves and goggles during all cleaning operations when there is the potential to come in contact with chemicals.*
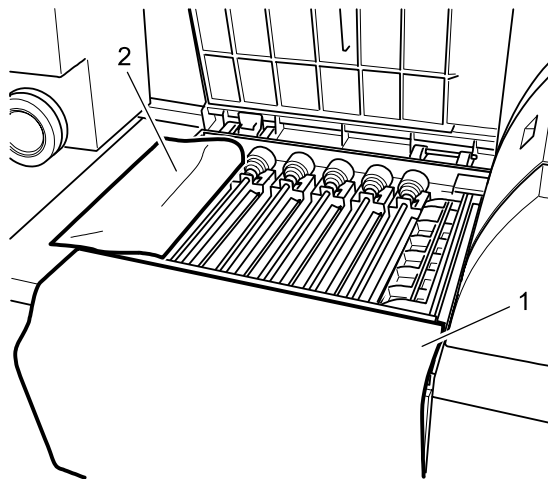

CAUTION: **Chemical splashes may stain the covers. Remove any splashes immediately with water.**

1. Fasten the larger splash guard (1) to the front of the paper processor to protect the area from chemical splashes.

2. If not already in place (from removing the CD feed unit), fasten the smaller splash guard (2) to the CD rack to prevent the CD solution from being contaminated by the BX (bleach-fix) solution.

CD   SB1   SB3
    BX   SB2   SB4
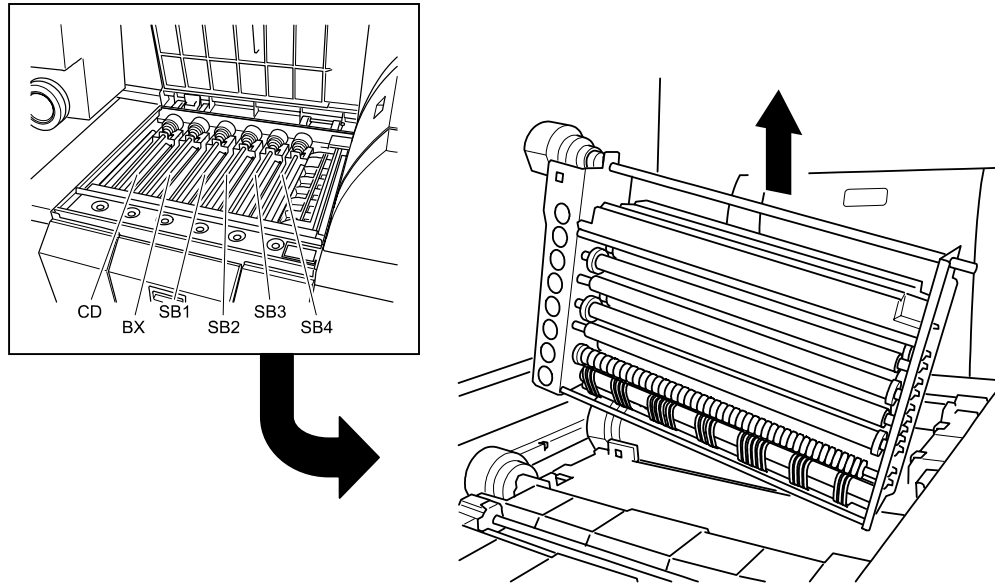
3. Open the rack locks. Lift the racks SB1 to SB4 and let the excess chemical solution drip from the racks.
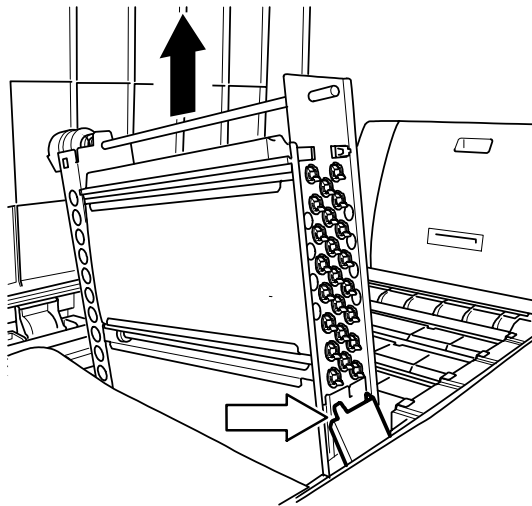
White Arrow: Hinged holding plate
on the CD and BX racks

4. Lift the BX rack far enough so that the hinged holding plate can rest on the metal bracket to let the chemical solution drip from the rack.

5. Remove the splash guard from the CD rack. Then remove the CD rack in the same way as the BX rack. (See Step 4.)

6. Remove the dripped racks, put them in the tray supplied as an accessory and take them to a lab basin.

7. In the lab basin, rinse the racks first in cold water, then in warm water (maximum 40 °C).

8. Clean the rollers and gears on the outside with warm water and a soft brush. Remove any crystal deposits that may stick to the lateral drive gears. Flush the deposits down the sink.

9. Dismount the guide elements to clean the inside rollers. For this, press together the bearings clipped into the side parts at the catches and take them out.
On the CD and BX racks, dismount in addition the four styrodur displacers mounted in holders on both sides.

10. Clean the rollers with a soft brush. Clean the guide elements with warm water and a lint-free cloth.

11. Let the racks drip dry.

    a. Mount the guide elements.

    b. Clip the bearings of the guide elements securely into the plates.

    c. Mount the displacers and fasten them securely in the holders.

    d. Check for and tighten any loose hardware.

12. Check the smooth movement of the racks by turning the drive gear.

13. Insert the cleaned racks slowly into the tanks in the correct order.

14. Reinstall the CD feed unit, crossovers and squeegee unit according to the instructions on Page 8-23.

15. Close the wet section cover. (For important safety information, see *Opening and Closing the Wet Section Cover* on Page 8-20.)

Cleaning the Dryer Rack

The necessary tools are:

- Screwdriver or coin
- Lint-free cloth and warm water
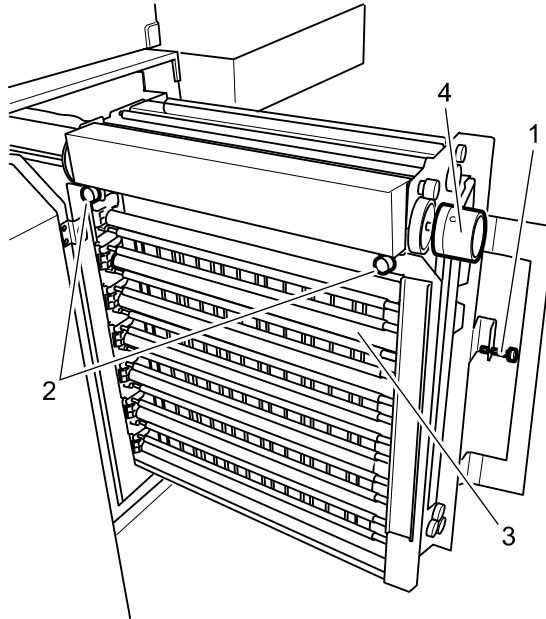
1. Remove the dryer cover. Use a coin to turn the lock by 90°.

2. Loosen the locking screw (knurled screw 1) of the dryer rack. Pull out the rack on the telescopic rails.

3. Remove only the feed roller set after unscrewing the knurled screw (2), and put the rollers in water to soak overnight.

CAUTION: **If the rollers will not be mounted prior to the next automatic startup, be sure to disable the automatic MBL in order to prevent a paper jam.**

4. Before starting to work the next day, wipe off all deposits on the feed rollers and the feed plate with a lint-free cloth.

5. Clean the guide roller behind the feed rollers with water and a lint-free cloth.

6. Check all foam plastic rollers (3) for damage and replace them if necessary.
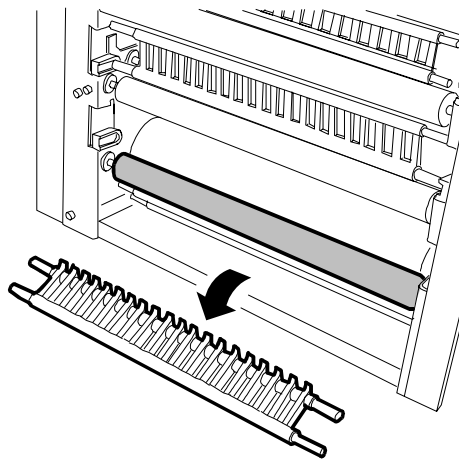
7. Remove the guide grids and clean with water and a lint-free cloth to remove all chemical deposits (crystalline sheet bridge deposits).

8. Carefully mount the guide grids.

9. Mount the bracket with the feed roller set on the rack.

10. Check the smooth movement of the rack by turning the handle. (See No. 4 in the figure on the previous page.)

11. Push the dryer rack in the dryer cabinet and fasten it with the knurled screw.

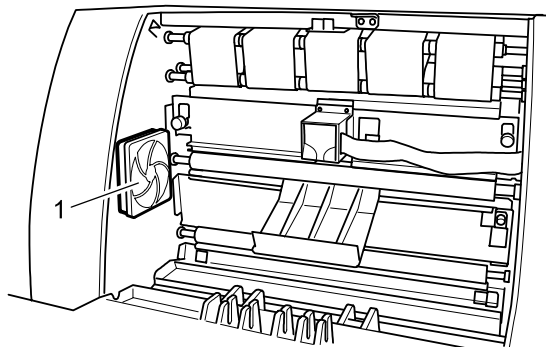12. Reinstall the cover. Rotate the lock 90°, and push it in and up to the locking position.

Cleaning the Paper Outlet

Cleaning / Replacing the Air Filter

NOTE: The filter with holder is mounted on the fan that is next to the densitometer. Open the flap on the paper outlet to access the filter.
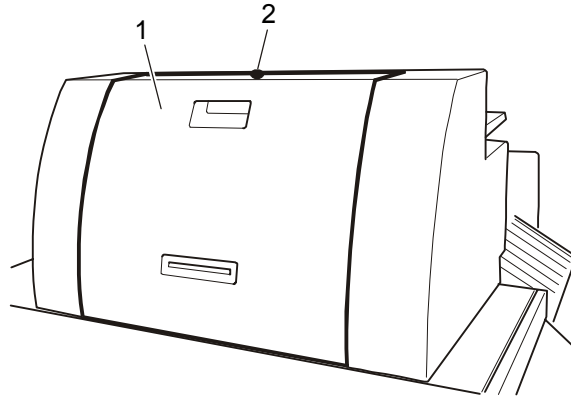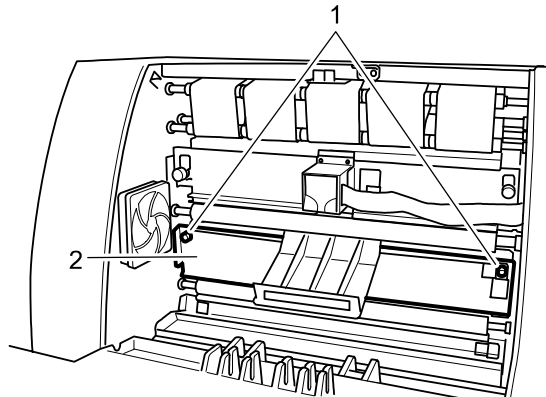

1. Remove the screw (2) and open front cover of the paper outlet (1).

2. Remove the holder (1) from the fan housing.

3. Wash the filter mat in warm water.

4. Put the filter in the holder and insert the holder.

Cleaning the Slide Plate with the Feed Chute

1. Unscrew (1) the guide plate (2) and lift it with the feed chute out of the supporting brackets.

2. Wipe the rear guide plate and the removed plate with water and a lint-free cloth.

3. Put the guide plate in the supporting brackets, push it down and fasten it (1).
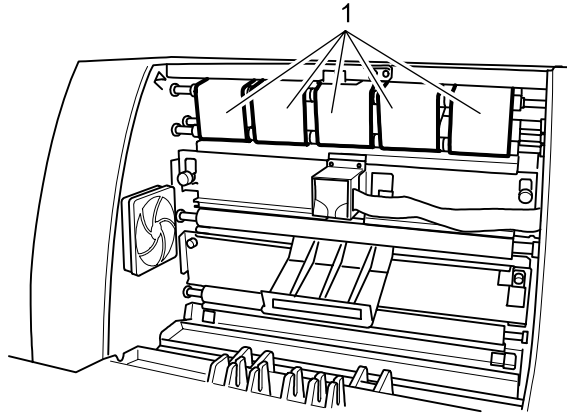
Cleaning the Rubber Transport Belts

CAUTION: **Only clean the rubber transport belts and the rollers in the paper outlet unit while the transport is switched off.**
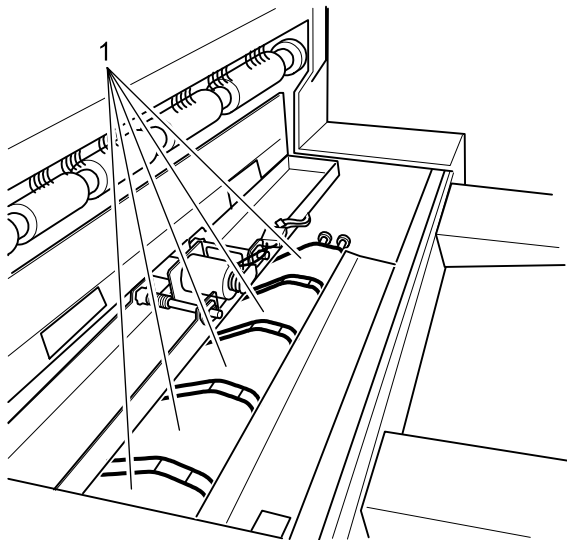
Necessary tools:

- Lint-free cloth and warm water
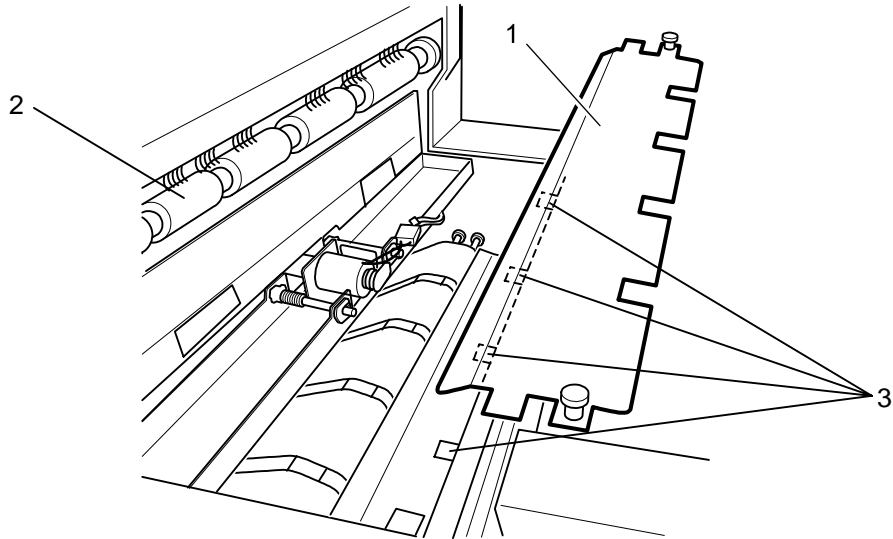- Vacuum cleaner
- Soft brush

Purpose:

To provide reliable paper transport.

1. In the paper transport above the densitometer, clean the visible areas of the rubber transport belts (1) with a damp cloth.

2. Remove the deposit tray for the larger size prints.
3. Clean the visible areas of the transport belts with a damp cloth (1).

4. Unlock the quick-action locks on the slide plate (1) in front of the output rubber rollers (2). Remove the slide plate.

5. Clean the dust from the output area with a vacuum cleaner.

6. Clean the four light sensors (3) in front of the output rubber rollers with a brush.

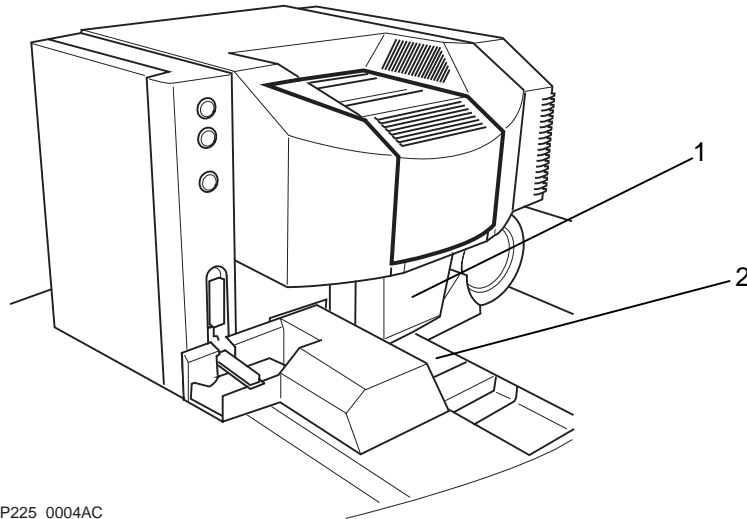7. Reinstall the slide plate and fasten it securely with the quick-action locks.
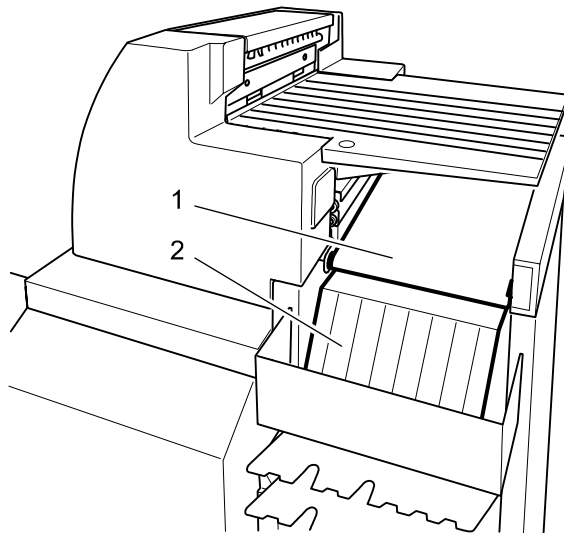
8. Clean the transport belt (1) of the print chute with a damp cloth.
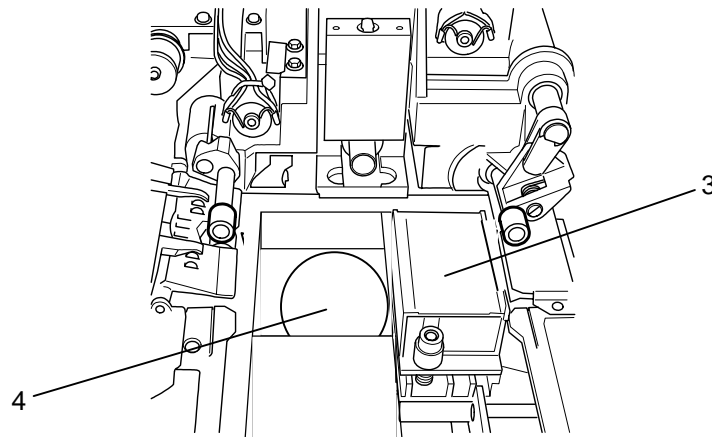
Maintenance When Required

Removing the Dust from the Lens

Tool needed: Compressed air

P225_0004AC

1. Remove the mirror box (1) by pulling the box towards the front of the scanner.
2. Remove the film mask (2).

3. Push the prescanner (3) to the right manually.
4. Clean the lens covering glass (4) with the compressed air.
5. Reinstall the film mask and mirror box.

Changing the Ink Ribbon on the Back Printer

Replace the ink ribbon when the printing on the back of the prints becomes too faded.
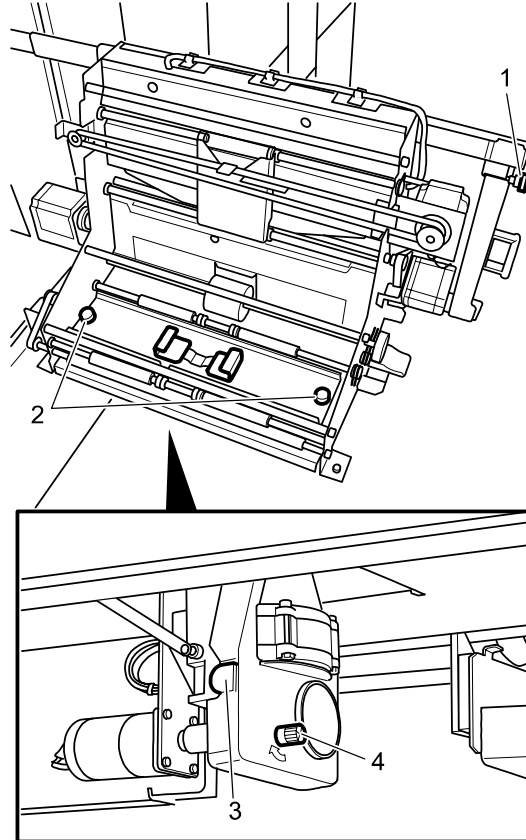

1. Unscrew the locking screw (1, red) of the lane distributor.

2. Pull out the unit on the telescopic rails.

3. Loosen the knurled screws (2) and remove the top cover of the back printer.

4. Remove the ink ribbon cartridge by slightly pushing in both sides (3).

5. Prepare the new ink ribbon cartridge:
    If present, remove the foil strip on the ink ribbon. The ink ribbon must be tight in the cartridge; if necessary tighten by the knob (4) (note the direction indicated by the arrow).

6. Insert the ink ribbon cartridge.

7. Slightly turn the knob (4) on the cartridge until you hear the cartridge lock in.

8. Push in the lane distributor and tighten the locking screw.

Emptying the Effluent Tanks

WARNING: ***Wear protective gloves, a rubber apron, and goggles when you empty the effluent tanks.***

As soon as one of the effluent tanks is full, a message appears on the screen advising that this tank must be emptied.

NOTE: It is possible to touch **Clear** to suppress the message and to continue the work for a while. When the message appears for the third time, it can no longer be cleared.
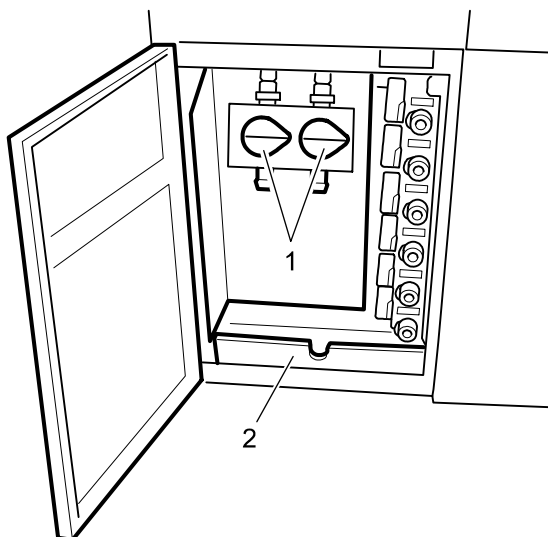
1. Open the front door at the bottom left of the paper processor. Position (1) marks the drain valves you must open to empty the effluent tanks.

2. Put a bucket under the respective drain valve.

3. Open the valve and empty the tank.

4. Close the valve.

5. Do Steps 2–4 with the adjacent second valve.

CAUTION: **Do not open both valves at the same time. The volume of both tanks is 20 L.**

IMPORTANT:

- *Do not open the drain valves in the vertical position on the right side. They are used to empty the processing tanks CD, BX and SB1 to SB4, for example, when a completely new tank preparation has to be filled into single or all tanks.*

- *Check the pan (2): If it is full even though you emptied the tanks in time, call a technician. The hose systems could be defective.*

6. Dispose of the effluent by following procedures specific to your lab. See *Disposal of Chemicals and Containers* in *Regulatory and Safety Information*.

Consumables

Chemicals

Chemicals	CAT No.
KODAK EKTACOLOR Processing Cartridge 75	528 3345
KODAK EKTACOLOR RA Developer Starter	102 6681

Air Filters

Air Filter	CAT No.
Annual Air Filter Kit	849 3678

Other Consumables

Consumable	CAT No.
Chemical Filters	113 3453
Backprinter Cartridges	826 0739
KODAK PROFESSIONAL Illumination Lamp for SRP 30	111 1764
KODAK PROFESSIONAL Pro Strips for Process RA-4	129 8587

KODAK PROFESSIONAL Digital III Color Paper

Rolls in. x ft	Rolls cm x m	Surface	Catalog No.
$3^1/_2$ x 577	8.9 x 176	E	871 5989
		F	896 8570
4 x 577	10.2 x 176	E	892 4664
		F	180 0036
		N	855 1392
5 x 577	12.7 x 176	E	855 6276
		N	115 3006
6 x 577	15.2 x 176	E	178 8710
		F	178 3380
8 x 262	20.3 x 88	E	828 5041
		F	802 9134
		N	860 6014
8 x 577	20.3 x 176	E	886 1064
		F	889 7290
		N	804 3499
8 ¼ x 262	21 x 80	F	894 0223
		N	895 8019
$8^1/_2$ x 577	21.6 x 176	E	835 6297
		F	883 5910
10 x 288	25.4 x 88	E	898 7034
		F	107 0523
		N	191 6816
10 x 577	25.4 x 176	E	831 0930
		F	838 3432
		N	866 7743
11 x 288	27.9 x 88	E	846 6740
		F	864 9865
		N	109 2105
11 x 577	27.9 x 176	E	870 5204
		F	823 1730
		N	832 1770
12 x 288	30.5 x 88	E	171 5127
		F	192 2434
		N	800 5670